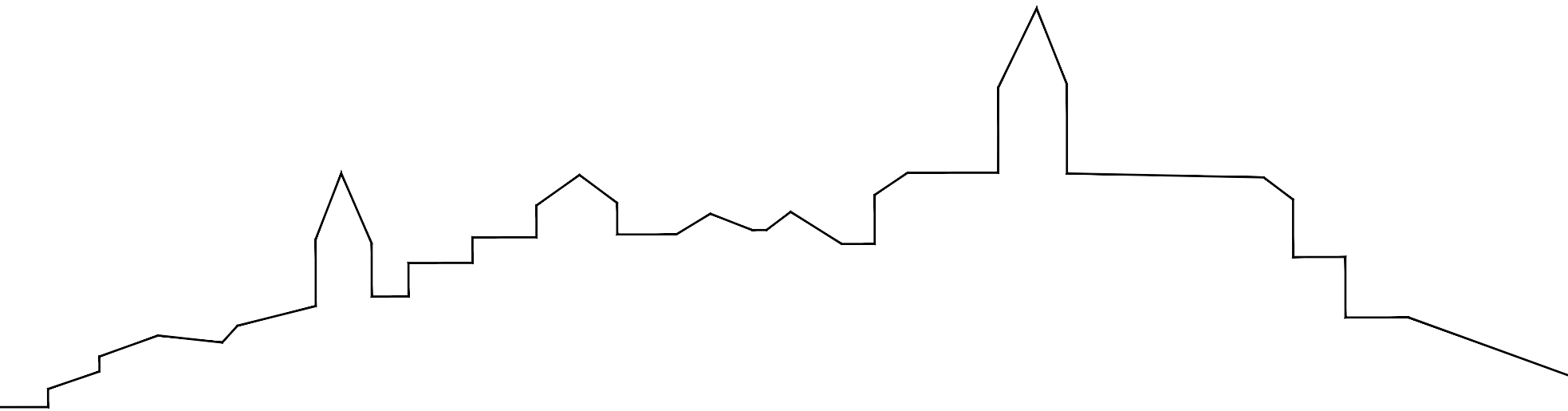


# The Revitalization of an Istrian City: The Case Study of Buje



Medina Cevapovic



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## Diplomarbeit

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Case study of Buje

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# The Revitalization of an Istrian city:

## Case study of Buje

Preservation of istrian inner cities has been an ongoing topic in the last several decades as a consequence of deteriorating architectural heritage of the area. Among the cities most affected by this phenomenon is Buje, with its historic core being in jeopardy of losing significance. Buje, despite popular opinion based on its appearance today, has an interesting story to tell. It is a story about an Istrian city built on a hilltop, like many others, but which found itself to be in the middle of important traffic routes throughout history. Therefore, it became a notable place across several dimensions: historic, architectural, economic, industrial and cultural.

This thesis presents data about Buje with all important aspects that influenced its present state. The data is collected and analyzed to present the potential and the shortcomings of Buje which were then used as a basis for architectural and urbanistic intervention. The aim of the project is to exemplify a model of intervention for cities with similar issues, scale and conservation guidelines.

# Die Revitalisierung einer Istrischen Stadt

## am Fallbeispiel Buje

Die Erhaltung der istrischen Innenstädte war in den letzten Jahrzehnten ein fortwährendes Thema als Folge der sich verschlechternden architektonischen Erbes der Region. Zu den Städten, die am stärksten von diesem Phänomen betroffen sind, gehört Buje, dessen historischer Kern in Gefahr ist, an Bedeutung zu verlieren. Buje hat trotz der heutigen Meinung eine interessante Geschichte zu erzählen. Es ist eine Geschichte über eine istrische Stadt, die auf einem Hügel gebaut wurde, wie viele andere auch, die sich aber im Laufe der Geschichte inmitten wichtiger Verkehrswege befand. Daher wurde es zu einem bemerkenswerten Ort in mehreren Dimensionen: Historisch, architektonisch, wirtschaftlich, industriell und kulturell.

Diese Dissertation präsentiert Daten über Buje mit allen wichtigen Aspekten, die seinen gegenwärtigen Zustand inerfüllt haben. Die Daten werden gesammelt und analysiert, um die Potenziale und Mängel von Buje darzustellen, die dann als Grundlage für architektonische und städtebauliche Interventionen herangezogen wurden. Ziel des Projekts ist es, ein Interventionsmodell für Städte mit ähnlichen Themen, Größenregeln und Erhaltungsrichtlinien auszuweiten.

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*'Među brdima se dižu na znatnoj visini Buje, vrlo napučen  
kaštel, (...), mjesto s dobrim zrakom u kojem prebiva lijepo i  
dobro ovih krajeva'*

*'Among the hills, elevated at a considerable height, lies Buje,  
a highly populous citadel, (...), a place with good air in which  
the nice and good things of these parts resides '*

Giacomo Filippo Tommasini

# Introduction

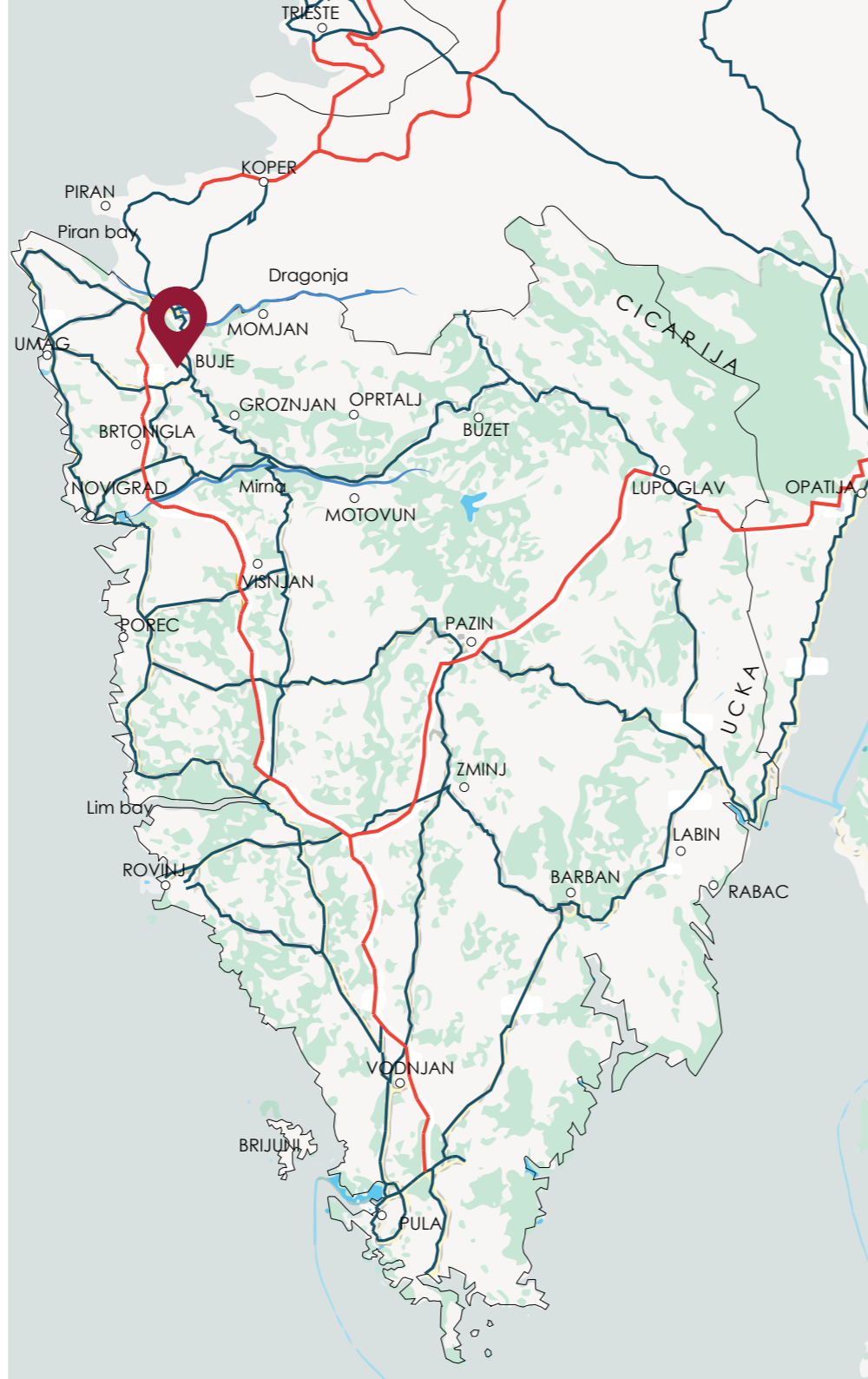
# Location

Buje (Buie d'Istria in Italian) is a town located in the northwest area of the biggest Croatian peninsula - Istria. Inwards of the island, it is positioned between rivers Mirna in the south and Dragonja in the north. The river Dragonja partially follows the border between Croatia and Slovenia and flows into the Adriatic Sea at the Piran Bay.

The Istrian Y highway system, which consists of highways A8 (Matulji - Kanfanar) and A9 (Slovenian border - Kanfanar - Pula), passes through the town with the northern part of the A9 route which connects the biggest Istrian town Pula with northwest Istria and ultimately, with Koper and Trieste, Slovenia and Italy. This route is the connecting the railways, the closest one being in Buzet on the Croatian side and Koper on the Slovenian side. The closest airports are in Pula and Trieste and there is also a smaller airport in Portoroz.

Buje also lies on country roads coming from the direction of Rijeka from the east, passing through Lupoglavlje, Buzet, Motovun and Groznan, leading to the town connecting with the country road 300 which passes directly through the narrow area of Buje from which western coastal cities are then easily reachable.<sup>1</sup>

Buje is therefore an important traffic hub, positioned between the inner peninsula, coastal cities and neighboring countries.



# Area

The town of Buje-Buie was established as a local self-administration unit in 1993 after the breakdown of the former Buje County, whose area was split into three municipalities and three cities. In the past Buje was the capital of the county of Buje which included cities Umag, Novigrad, Brtonigla, Groznan and many smaller settlements.

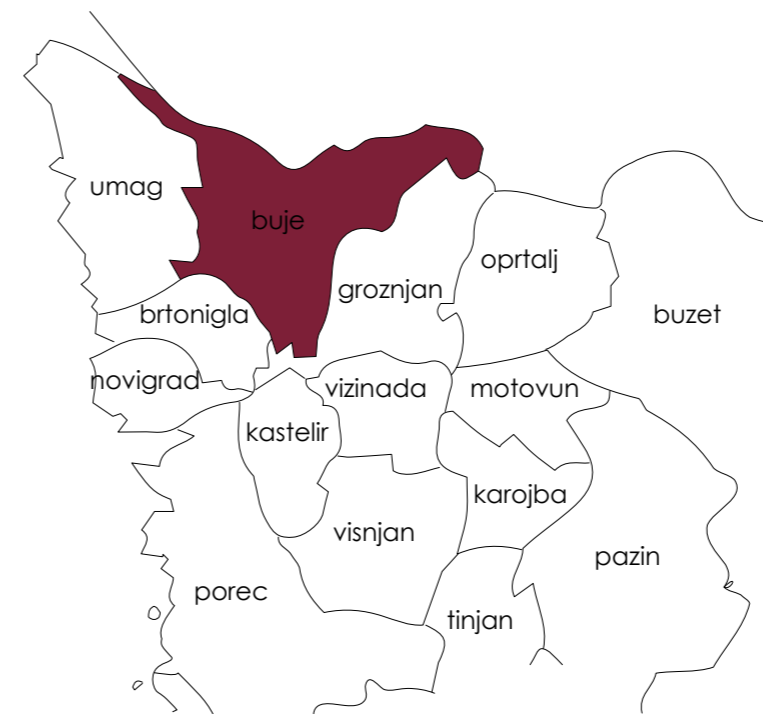
Throughout history and to this day Buje remained the administrative, judicial and educational center of Bujština (a term used to describe the northwest area of Istria). The local self-administrative unit adjoins the Slovenian border to the north and units Umag to the west, Brtonigla to the southwest and Groznan to the east/southeast.

The Town of Buje as a local unit consists of 21 statistic settlements including Buje, Savudrija, Kastel, Momjan, Merišće, Krasica, Kršete, Lovrečica, Triban, Kućibreg and Brdo, alongside many other smaller settlements.

The town covers 10,033 ha or 103,28 km<sup>2</sup>. Of that, 99,21 km<sup>2</sup>, amounting to 3,67 % of the County of Istria's total territory.

Only 5 % of the Town's territory is constructed (594 ha). According to the data, the municipality of Buje contains 63 ha of water surface, excluding the river Dragonja and its river mouth - the St. Odorik canal.

The biggest part of the area consists of agricultural fields and forests. The length of the sea border within the county is 2,5 km.<sup>2</sup>



Natural factors

# Climate

The sea that surrounds Istria from three sides conditions its climate. From the west and northwest the influence of the Atlantic is present as the source of heat and humidity. The position on the northern edge of the Adriatic Sea is important, where the Mediterranean and the Adriatic Sea moderate the unpleasant influence of the hot and dry air coming from the Saharan area. The air passing above Sahara (jugo) moistens while passing above the sea. This causes mostly mild and wet winters, while summers are hot and sultry.<sup>3</sup>

The climate of individual areas of the peninsula depends on land, sea and elevation. The climate of Istria is classified into three categories. The coastal belt covering the area between cities Novigrad and Rabac has the highest temperatures and receives least amount of rainfall. It belongs to the Mediterranean climate classification (Cs by Köppen). The remaining coastal belt in the Liburnian littoral on the eastern side of the peninsula and area north/northwest of the river Mirna has a moderate hot and moist climate with dry summers (Cfa by Köppen).

The rest of Istria covering the continental area - including Buje - belongs to the Moderate warm climate with warm summers or SUBMEDITERRANEAN CLIMATE (Cfb by Köppen) classification. The climates Cfa and Cfb differ from the Mediterranean one by a slightly higher moisture level and lower temperatures, while still possessing many Mediterranean features.

The area of the town lies on an app. 70 meters higher elevation compared to the coastal areas. Here, the average January temperature lowers down to 4 °C while in July the average temperature is 22 °C. The average yearly temperature is 14 °C.

The area of the town has approximately 2400 sunny hours a year. During the year on average 900 mm of precipitation falls on one m<sup>2</sup>. The wind's blowing comes from northeast and east (bura), istočnjak (levant) and sjevernjak (tramontana).

In the winter the cold and dry air (bura), coming from above the Alps and Dinaric Alps and passing above continental parts of Europe, can cause lowering of the temperature and appearing of the frost.<sup>3,4</sup>

# Geomorphology

In 1907, based on geological composition and different sorts of soil, N. Krebs categorized Istria into three sections: White Istria (hilly northern part), Grey Istria (lower flysch hillside) and Red Istria (low limestone plateau).

The inner area of the peninsula which includes Buje, on account of this categorization, belongs to Grey Istria which is characterized by the presence of clay soils and flysch deposits. By selective denudation of flysch deposits, the highs made up of solid layers of flysch were left lagging behind. This is where the first Istrian acropolis settlements were built.<sup>3</sup>

The northern border of the town is the river Dragonja, or the canale of St. Odorik. The town has an exit to the sea in the Piran Bay (Savudrijskavala). The northern area of the Town of Buje has a hilly landscape, called the Buian karst and the terrain is slowly lowering towards the south and the valley of the river Mirna. The settlement Buje lies at 222 meters above the sea level.

Grey Istria is morphologically dynamic, consisting of many hollows and hills and has a high number of constant and occasional watercourses and that dynamism is the reason why there is a significant number of small settlements built on relatively high elevations. They are mostly excluded from one another, but also integrated into bigger settlements when found in a close proximity.

Two different types of soil present in the area are terra rosa and carbonate soil. Lime soil ground covered by belts of red soil created a suitable environment for cattle breeding. Besides that, agriculture (olive and greens breeding) is very developed in the area.<sup>5</sup>

Figure 1, types of soil in Istria





*'Mi nismo Talijani, nismo Slovenci, nismo Hrvati, mi smo Istrijani i imamo elemente više naroda. Istra počiva na tekovinama antifašizma.'*

*'We are not Italians, we are not Slovenes, we are not Croats, we are Istrian and we have elements of more nations. Istria is based on the heritage of anti-fascism.'*

unknown author

# Population

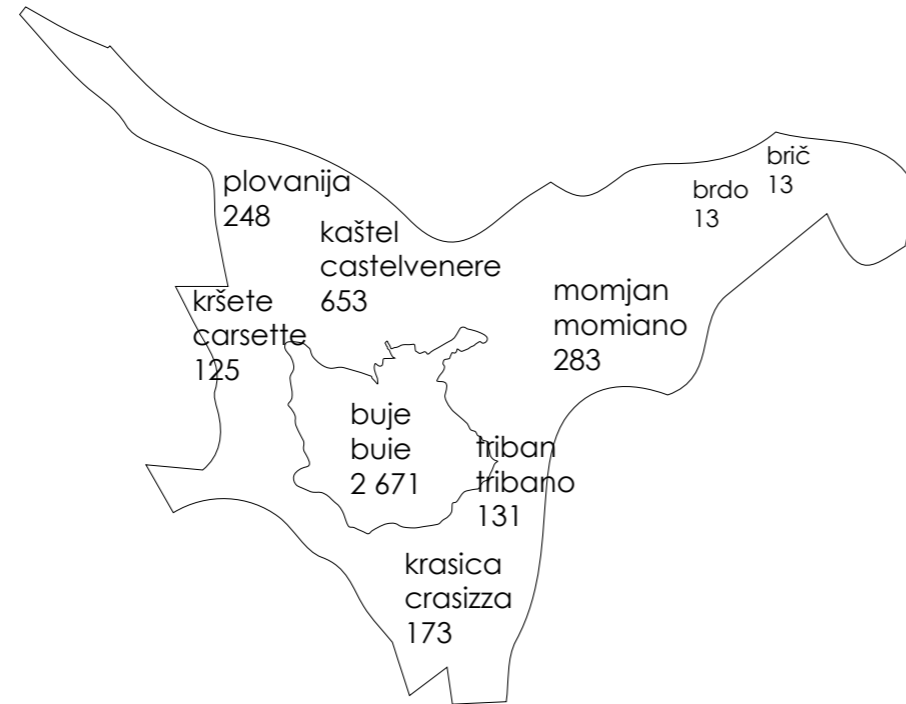
# Residents

The latest 2011 population census shows that the whole area of the town was inhabited by 5182 inhabitants, or 2,49 % of the total number of denizens in Istrian County. The population density is 49,6 people per kilometer which is less than the population density of both the Istrian County and general density of Croatia : 73,8 people per kilometer for Istria and 75,8 for the average State population density.

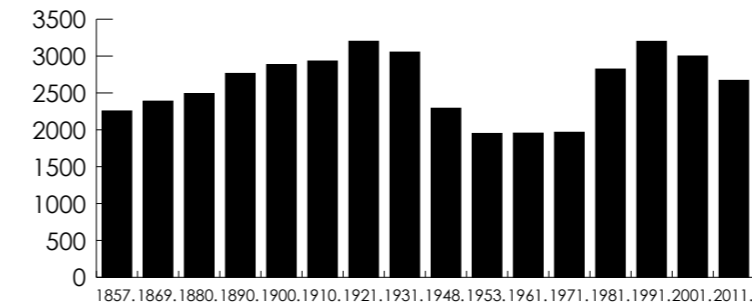
The characteristic vital index is negative on the level of the Istrian County, as it is on the level of the Republic of Croatia. The whole area of Buje has a slightly better vital index compared to the two, with 83,2 children born per each 100 deaths in 2014. The share of working-age population (15-64 years of age) is also slightly better in comparison to the county and the state with 71,4 % of people capable of working.

Out of the 21 settlements which the Town of Buje consists of, the settlement Buje has the highest number of inhabitants: 2671 as recorded in 2011. The number is followed by Kaštel-Castelvenere with 643. Other settlement's inhabitant numbers in the area of Buje vary between 13 and 283, except Kanegra on the coast (tourist settlement) and part of the settlement St. Marie on Kras which both have no registered population. <sup>2</sup>

On the picture the border of the town of Buje is shown and compared by number of inhabitants to settlements surrounding it in the county.



The population within the settlement Buje reached its highest number in 1991, recorded in the population census, with 3200 inhabitants. After that, a trend of negative demographic is present, lowering by 2,2 % (3 001) by 2001 and 4,4 % by 2011 (2 671). <sup>2,6</sup>



Population of Buje 1987-2011, Bureau of Statistics, DZS, Croatia

Istria was always a multiethnic region. According to the latest population census from 2011 on the area of Buje the biggest national group are Croats (48,7%) followed by Italians (24,3%), regionals (10,4%), Serbs, Slovenes, Bosniaks, Albanians and others. <sup>6</sup>



Figure 2

# Language

From the 19th century until the 1950s Italian was the language most spoken amongst the people of Buje. Today Croatian is dominant with 58,39% of the people referring to it as their mother tongue and 33,25% speaking Italian as their first language.

The area is known for the dialect Istroveneto, which is a set of Italian dialects used in the Croatian and Slovenian part of Istria. After the Romanization process, local languages have developed from the Latin language. In the south of Istria an example of that is Istrioto or Istroromanzo, while in the north there are several dialects of Friulan type.<sup>3</sup>

In all population censuses, from 19th century til 1950s, the absolute majority of the population declared itself to be native Italian speakers.

The 1910 Austrian census in the Buje municipality (restricted to the town center and the closest immediate area) registered 3170 denizens, of which 3061 were Italian.

Despite the general 'exodus' of Italian population Buje is found among the Istrian towns with the largest percentage of population self-described as Italian. According to the croatian 2011 census there were 1261 Italians, i.e. 24,33% of Buje's population. Until recently, when Groznjan was still a part of Municipality of Buje, Italians were major the ethno-linguistic group in the town, making 51% of total population.<sup>25</sup>

An annual festival of these dialects is set in Buje, Pula, Umag, Kopar, Muggia and Rijeka. The aim of the manifestation is to emphasize to the public the valuation and protection of the Istroveneto dialect which represents the everyday communication and also the culture of the Italian minority amongst others who use the dialect as a second language. The festival is of international character and connects three countries: Croatia, Slovenia and Italy.<sup>2</sup>

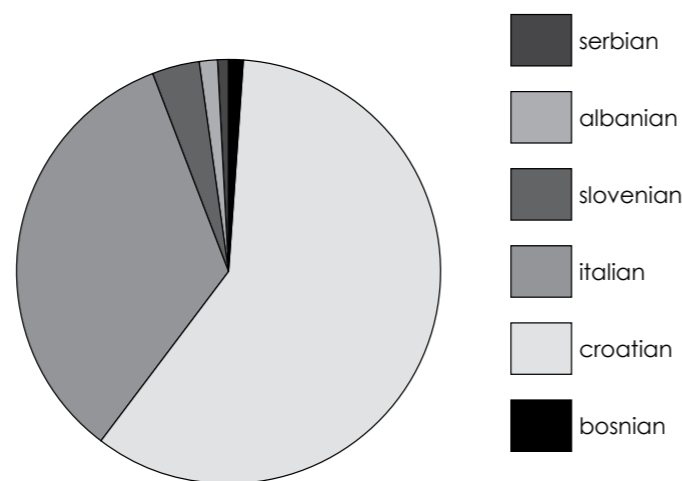


Figure 3

Economy

# Industry

Buje is located in the Istrian county which has a higher GDP per capita than other Croatian counties.

A favorable geographical position of Buje contributed to the **development of trade** along with several types of industry.

Despite the global economic crisis, data indicate very low GDP oscillations.

When speaking of Buje's economy structure we rely here on data from the year 2015. Most of the employees were in the manufacturing industry, 296 or 37% of the town-level employees. The second significant group is made of entrepreneurs in wholesale and retail trade, which in 2015 employed 135 people or 16.6%. The following are the activities of construction industry with 114 employees, and the activity of providing accommodation, food preparation and serving with 97 employees; art, entertainment, recreation with 63 people, etc. From the Record of Annual Financial Statements, led by Fina, the following figure can be distinguished: the highest average monthly salary, amounting to 7842 kunas, was calculated for entrepreneurs in information and communications business sector, namely, for a single registered company with 3 employees.

A favorable geographical position of Buje served in favor not only of trade development but also of industrial branches, mostly light industry. The most pervasive are metalworking, mechanical engineering, chemical industry, electronics, electrical energy and information technology.

The biggest number of employees works in manufacturing industry, which is followed by trade, construction, tourism and accommodation, art, entertainment and recreation.

The municipality has several entrepreneurial zones outside of settlement areas with specific uses of land for offices and factories. Inside of the area is the area of Stanica with a business and manufacturing purpose.

Here is the origin of many former big companies: Digitron, Ferroplast, Bifix, Rudin and Brolex. Many structures inside of the area are unused.

DIGITRON\_electronic devices factory  
FEROPLAST\_wire products manufacturing  
BIFIX\_chemical processing company, producing construction materials such as plaster, facade colors and construction glue  
RUDIN\_wholesale and retail of materials, production and processing of architectural stone, construction  
BROLEX\_solar system merchandise and consulting, electrical installations implementation and montage, wholesale and retail of electrical material. <sup>2</sup>

*The "Digitron" factory brand, the factory in the industrial zone close to the town of Buje, that produced the first (!) commercial calculator in Europe. An example of the image of industrial heritage of relatively new origin. The company has not only become a synonym of the valuable brand, but still sends out a powerful message of innovation and success, even years after the factory was shut down.*



Figure 4

# Tourism

The main developmental potential for Buje's tourism comes from combination of a couple favorable factors, such as the well-connectedness of traffic location, the nearness of the regional centers, as well as the varied selection of tourist offers on both the coastline (e.g. Kanegra tourist village) and the land interior. As of yet, numerous tourist projects have been publicized: **the Buje Wine Road, the Olive Oil Roads**, a network of tracks for pedestrians and cyclists, incorporated into the county-level trail network, and lastly, many cultural itineraries for the old town centers. The network is mainly used as a **pedestrian-cycling** trail, but also for purposes of hunting tourism, etc. The primary tourist potential of Buje is based on catering and enogastronomy. A convenient road network, which is placed in a sufficient distance from traffic and crowds is suitable for relaxation in nature and engagement with sports activities like jogging, biking or horse riding.

The accommodation capacities of Buje didn't have any significant developmental initiatives or investments during the observed period from 2002 onwards. The only exception to that is the increasing number of private beds in private accommodation, i.e. apartments, holiday homes and agrotourisms. Notably, the accommodation capacity of the former hotel Azur in Buje is "overlapping" with capacities of a new hotel – Hotel Casino Mulino - in Plovanija, bordering Slovenia. The hotel is operating since 2001 and has accommodation capacity of 67 rooms given a high category 4\* evaluation. <sup>2</sup>

When listing all of the tourist features of Buje, we can say that in total it has 24 restaurants and taverns, 10 cafe bars, 9 wine tasting points, 2 casinos, 2 classical agrotourisms, a SPA hotel Mulino, TN (Kanegra) Sports Center (TNT), Disco Club TN Kanegra (operating just through the tourist season), MTB trails, bicycle trails, Parenzana Trail, hiking trails and European footpath section E12.

Buje has a total planned accommodation capacity maximum of 5000 beds, which provided for staying of 33,242 foreign tourists and 999 domestic ones, amounting to 34,247 total tourists, which combined had a total of 176,745 overnight stays, only fraction of the nights (2716) gained by domestic tourists. The average staying length was 5,16 days, while foreign stays averaged on 5,23 days and domestic on 2,72. Arrivals of both foreign and domestic tourists and their overnight stays increased since 2016. <sup>4</sup>



Figure 5, Days of Grapes in Buje, 1964.

## Agriculture

**Agriculture is a source of income for many inhabitants of the area.** The whole area of the municipality has a total of 795 ha of agricultural land registered, mostly used for crop fields, orchards, vineyards and olive groves. The most valuable bigger parcels are positioned south and southeast from the settlement Buje. The crops mostly bred are grapes, olives, fruit, vegetables and one-year tillage crops such as wheat and corn.

The settlement Buje has the highest number of registered agricultural economy units in the area of the town: 88 or 37, 6% out of all units in the town and is followed by Momjan with 24, Krašica with 16 and Kaštel with 13. According to the data, the average size of an agricultural parcel is 4.23 ha and each agricultural property cultivates 7.6 parcels on average.

In the records of the use of agricultural land, the largest share is occupied by vineyards, followed by fields and olive groves.

The soil of the area is rich in different mineral salts which is the reason behind the specific taste of olive oil, wine, honey, fruits, vegetables, mushrooms, meat, truffles and cheese.

## Viticulture

Viticulture also has a centuries-old tradition in this area. The most produced white wine varieties are malvasia and pinot while the red wines are teran, refosco, merlot and cabernet. In Momjan a special variety is produced and named Momjan muscat. Promotions of various products are regular and happen through many manifestations, specialized fairs and festivities such as the 'Days of grapes' in Buje.<sup>2</sup>

## Olive growing

On land areas of the municipality there are currently 150 000 olive trees on centuries-old plantations making up a surface of 300 ha. **The number of family farms and oil refineries is constantly growing and many of them are included in the so-called 'Olive oil roads' of Istria.** Olive oil roads lead tourists to specific plantations and oil refineries where they can taste the products.

The biggest growth is recorded in olive oil production and has led to annual manifestations in Krašica where the oil is evaluated. In 2004 an association of sensory analysts of oil was formed under the name USAMU for the purpose of constant growth of the quality of the product.<sup>2</sup>

Figure 6



Urban settlement Buje



# Observed area

The area of the town of Buje which belongs to the county of Buje has a small constructed area compared to the whole area of the town (5%).

The subject of intervention for the purpose of this thesis is the area where the **first settlement** formed which consists of the old town and its suburbs.

In close proximity to where the first settlement formed, a satellite industrial area also ensued.

Parts of the town include:

St. Sebastian - westernmost and one of the youngest constructed parts of the town

Brolo - located between the Old town and St. Sebastian

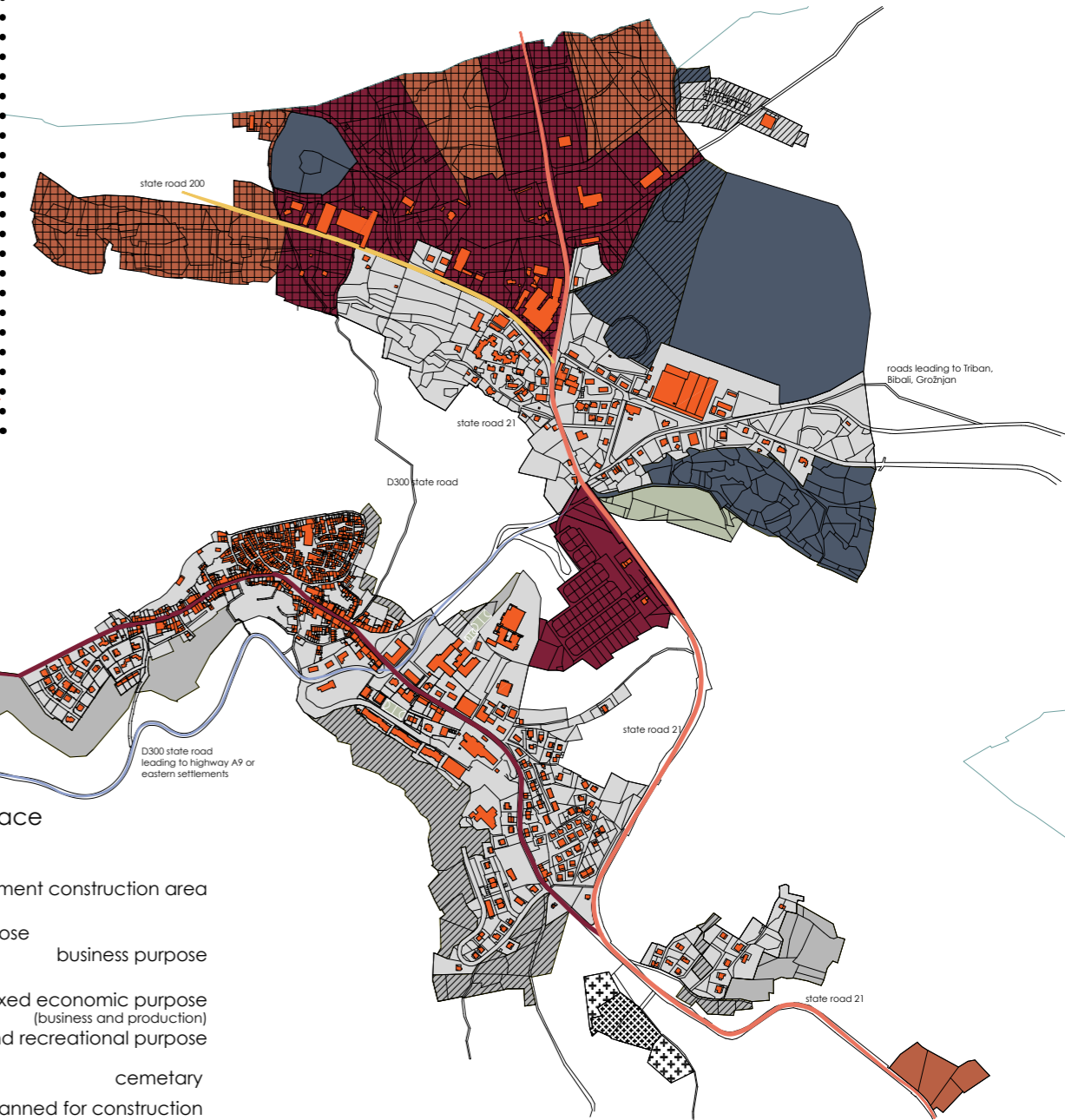
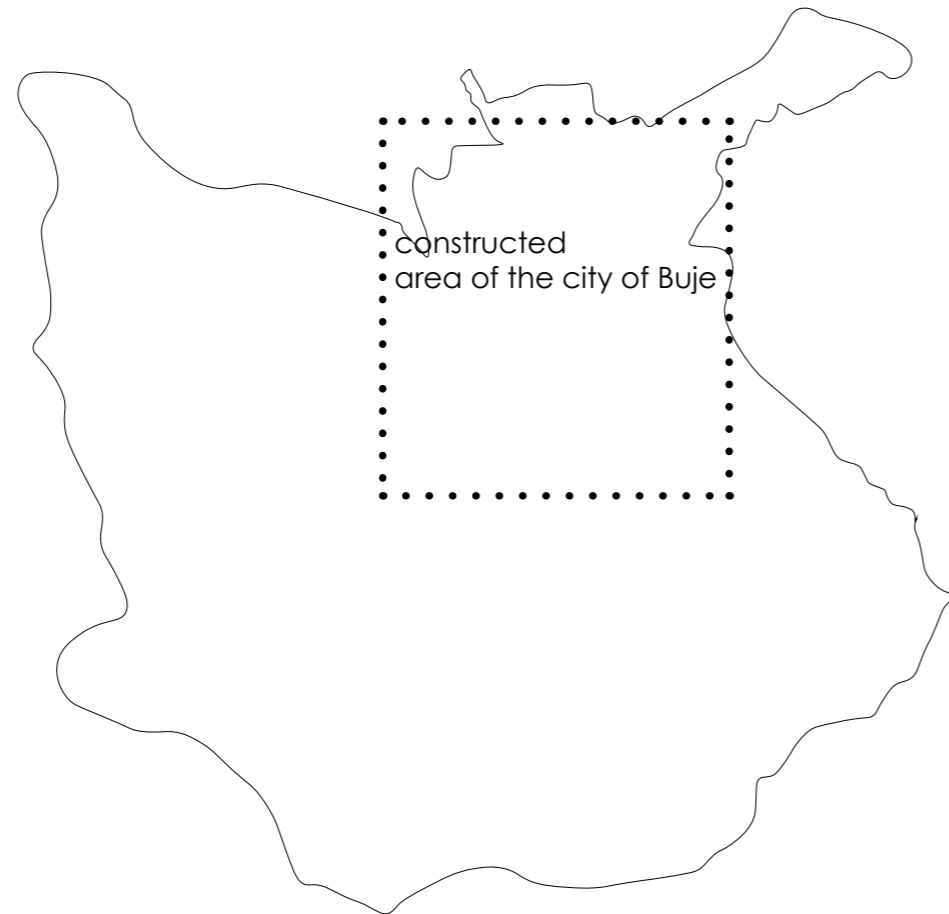
Old town - town's historical core

New town - newly built part including the court, administrative and political center of the town

Rudine - residential block built in the late 70s and 80s  
 School hill - the center of schooling where all the school institutions, a sports hall and the hospital are located

Monte Baster - easternmost part of the town in close proximity to the town's graveyard

Stanica - grown out of the old Austro-Hungarian railway station which soon became the economic center of Buje<sup>26</sup>



## development and arrangement of space

constructed	unconstructed	unconstructed/arranged	settlement construction area
surface outside of settlement/commercial purpose			business purpose
			mixed economic purpose (business and production)
			sports and recreational purpose
			cemetery
			planned for construction

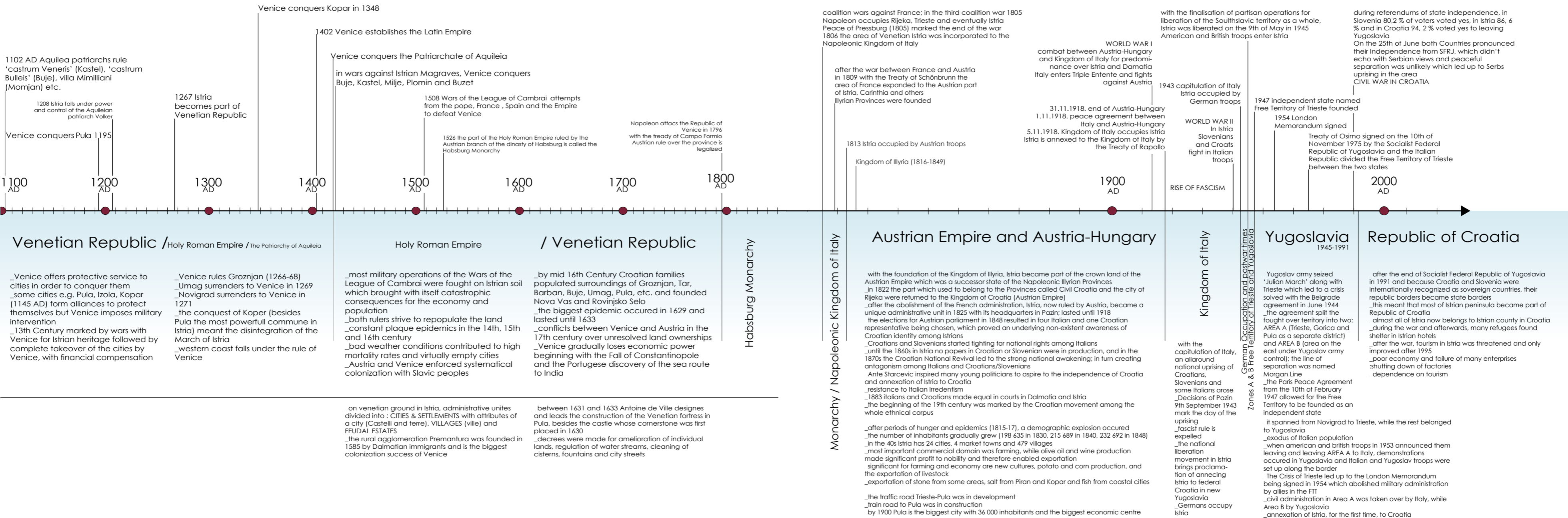
*'Kao na kotaču Fortune, okretala se sudbina  
gotovo svakog istarskog grada.'*

*"The fate of virtually every Istrian town was  
spinning as if it was on the Wheel of Fortune".*

Vladimir Bedenko

History





# Buje in the context of Istrian history

By selective denudation of flea deposits, highs of solid clusters in the contents of the fly were lagging behind. That's where acropolis settlements have been built on, including the city of Buje. This means the old city was built on the highest point of the hill, while the rest of the area lies on a lower sea level, wherefore the city of Buje has been proclaimed 'the sentinel of Istria' 'Sentinella dell'Istria' (Italian).<sup>5</sup> This title also signifies the strategic position the city has had throughout history as well as today. The Roman road Via Flavia, built in 78/79 AD, connecting three Roman colonies, preambulated the city east of its highest point and historic city.<sup>7</sup>

Archaeological research in the historic city took place in 2010, finding archaeological layers dating the first habitation traces to the Chalcolithic until the first half of the Bronze Age (3rd and first half of 2nd millennium BC).<sup>8</sup>

On top of this prehistoric settlement the medieval city was built.<sup>9</sup> Romans gradually occupied Istria and its native peoples by the year 177 BC<sup>10</sup> but left few remains in the city of Buje.<sup>11</sup> The fall of the West Roman Empire signified a new rule by the Ostrogoths (p 35), and later onwards by the East Roman Empire (p 37), followed by the Franks.<sup>10</sup>

The gradual rise of church power throughout Europe enabled the German Empire to occupy Bujština after 951. The city of Buje is first mentioned in 981, when German king and Holy Roman Emperor Otto I, gives his possessions to the patriarch of Aquileia. Buje in this era is referred to as a castrum, a fortified settlement with a status inlaying between a city (civitas) and a village (vicus).<sup>8</sup>

More than 40 years after coastal cities Umag and Novigrad fell under the rule of the Venetian Republic, so did Buje, in 1412. Because the population of the city showed signs of resistance to the new government, the Venetians destroyed walls and fortifications of the city. They decided to reconstruct the city in the second half of the 15th century. Plagues brought to coastal cities by ships caused high death rates, but not in Buje. Because of its elevation and fresh air supply, it was a refuge for many peoples escaping epidemics.<sup>12</sup>

The city had a new epoch of spreading and progress in the 18th century, the last under Venetian rule.

Austrians occupied the area in 1797 and ruled until 1805, which split Istria in Austrian and Venetian. In 1805 Istria falls under rule of France, and in 1815 again under rule of Austria. In the 19th century, the structure of the city is changing. The narrow railroad Parenzana, built in 1902 enhanced the strategic importance of Buje, only to be disconnected with the rise of fascism in 1935. This signified the end of economic progress and the slow degradation of communities. World War I and II were marked by the fascist movement and oppression, so many decided to join communist parties, leading to national liberation movements across the peninsula. The capitulation of Italy during World War II led to the liberation of Istria, with a big exodus of the Italian population of the area. Istria is then occupied by Germany in 1943, proceeding with its capitulation in 1945 under pressure from the Yugoslav army.<sup>12,13</sup>

Istrians approve an inclusion to Yugoslavia in 1945. After the War of Independence, Istria, along with other areas, becomes part of the Republic of Croatia in 1991. (U., 2010) The historic city center stopped being an active gathering point already in the 19th century, which reflected on the state of the architecture of the city. The proceeding article will deal with the urbanistic and architectural development of the city of Buje in a historic context.<sup>10,12</sup>



Figure 7, from the book 'Istria. Proslost, sadasnost'

# Historic-spatial development of the city

When observing and approaching a medieval Istrian city built on a hilltop, visible from a lower sea level are its surrounding walls as visible on the examples of Buzet, Motovun and Groznanj.

When approaching Buje from the north or the east, the city appears as a closed unity, but there are no visible structures that form walls on the outskirts of the historic core.



Figure 9, The city of Motovun



Figure 8, The city of Groznanj with its remaining walls



Figure 10, The city of Buzet



Figure 11, French cadastral measurement of Buje, 1819.

The tearing down of several structures in the historic city centre in 1975 is why the first reference for the research about the cities spatial development was the first cadastral measurement and thus the first city plan from 1918.

Visible on the city plan at first glance is the irregular agglomeration, which is mostly caused by terrain topography. This irregularity seems to be spreading throughout the area in the same manner. Upon observing this particular historic core, it was essential to aim attention at: the shape of the building blocks, the flow of city streets and the parcel shapes.<sup>12</sup>



Figure 12, Buje as seen from above, no visible city walls

Irregularities in these structures are what helped decipher possible events and urbanistic interventions in the context of history.

Based on this, the research distinguished three different types of city blocks in the historic core. The center, marked by a big church in the middle, has the first block type surrounding it. These blocks, and thus streets, around the square are either radially directed towards the city center or, in the northern part, simply oriented north-south, leading towards the church.

Focusing on the flow of the streets beginning from the historic core and moving towards the eastern edges of the city, a visible point of discontinuation of movement through the pedestrian paths is visible. The beginning point of this discontinuation marks the starting point of the eastern type of block in the city. The building blocks are oriented west-east, and so are the blocks to the west next to them, but the street axis are halted by built structures.

There are discontinuations in the block shapes and house parcels. There is only one direct path leading from the square to the outskirts of the city in the eastern part, but the margins of the outskirts of this path, and thus the building margins, are not on the same axis. The irregularity of the cities agglomeration is even more emphasized in this area, where pedestrian circulation is confusing.

- 1<sup>st</sup> Central/radial
- 2<sup>nd</sup> Eastern
- 3<sup>rd</sup> Western
- 4<sup>th</sup> Peripheral



Types of city blocks

To the west, there is a different situation, firstly with regard to the blocks orientation. They are stretching from north to south. For the most part, there is no direct path leading from the houses inside these blocks to the city center. Only one street connects this part of the city, and it is situated on the very north. As mentioned before, the city has no visible fortification on its margins. Instead of that, there are houses built on the outskirts in the west, north and east. These buildings surrounding the inner core form the fourth (peripheral) block type.

The irregularities of structure and mobility through the city, the writings of the priest and scientist Tommasini from the 17th century, the Veduta of the city from the 18th century and the cadastral measurements from the 19th century gradually led to hypothesis and conclusions about the changes in the structure of Buje.<sup>12</sup>

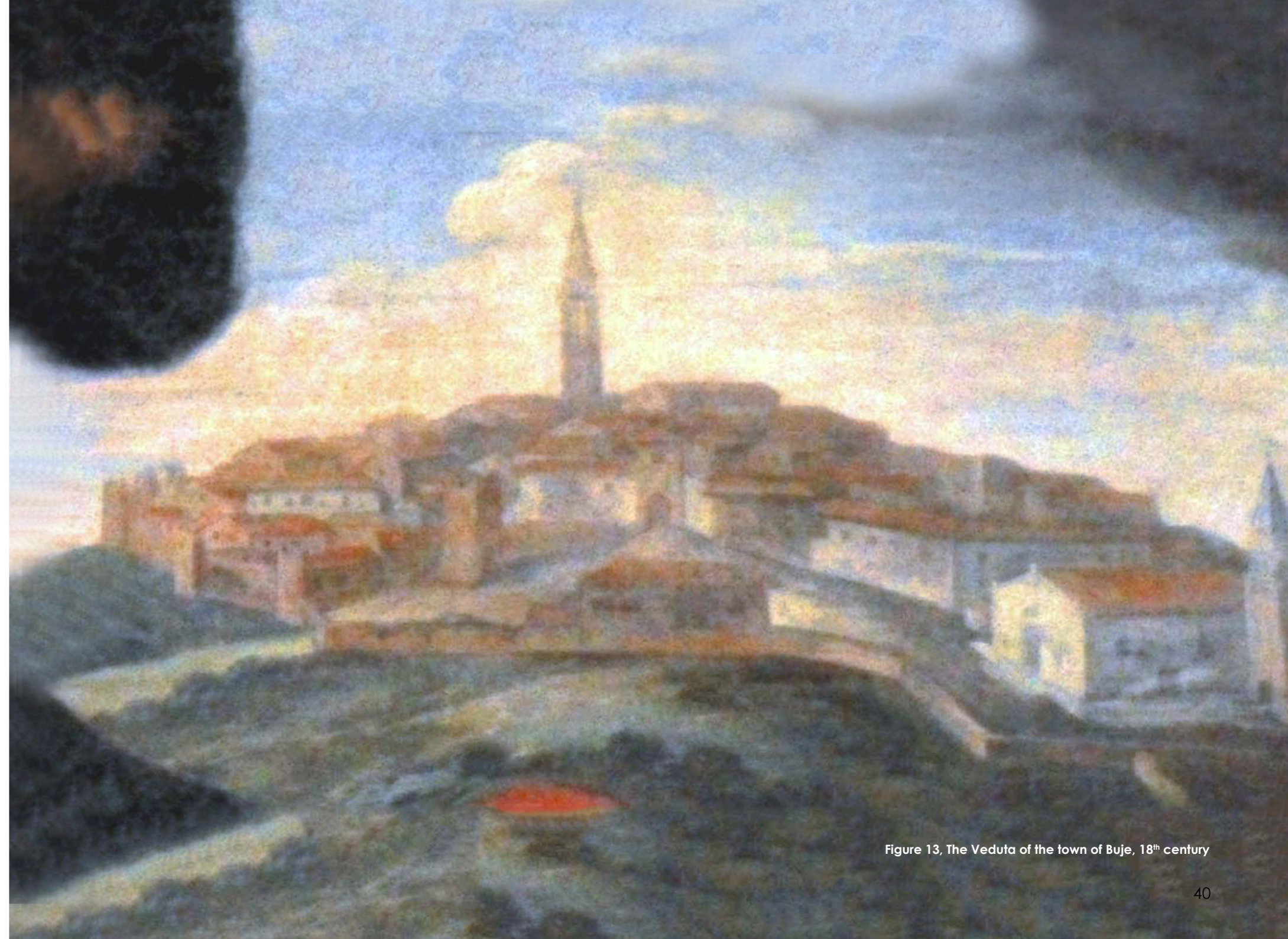


Figure 13, The Veduta of the town of Buje, 18<sup>th</sup> century

The first fortification phase of the city of Buje happened in the middle ages and dates at the latest to the 13th century. This is confirmed by the usage of the term 'castrum' for the city, during the handover of it to the Patriarch of Aquileia, firstly in 981 AC and afterwards in 1102.<sup>10</sup>

Supporting this is also the cachet of the commune of Buje on the credentials submitted to the Podesta of Piran in the year 1306. It displays a fortification based on top of a hill, with two towers in its corners and one belfry or tower elevated higher. Where were these walls positioned? Tommasinis writings record sanctification of two chapels on the east, The Chapel of the Holy Cross in 1394 and the Chapel of the Holy Trinity in 1397. Those years signify the construction years of the chapels. The chapel of the Holy Cross lies on the far eastern area, where the before mentioned eastern building block prevails. This thus signifies that the city was spread further to the east around this time.<sup>11 12</sup>

The time the chapels were built corresponds to the time when a war between Venice and Genoa took place (Guerra di Chioggia 1378-1382). During and after the war, coastal cities were desolated and population began migrating to the inner area of the halfisland.

The axis extending between the, before mentioned, northern and eastern blocks is the assumed axle of the first wall on the east. The position of the line is hypothetical as no archaeological findings were discovered in the east.<sup>12</sup>

The west side, considerably different, has the street on the north called Maxim the Bitter as the only connection of the eastern part to the centre. Parallel to that street is a street called Epulo. Epulo continuously stretches from the square in the direction east-west and suddenly ends as a dead end. Perpendicular to Epulo, to her west, lies Villa street. It's 4 meters lower in sea level than Epulo on the other side.

That situation where streets perpendicular to one another are of a significant height difference, led to conclusion about the position and axle of the medieval wall in the west. It extended parallel to the street Epulo, following the back walls of the houses in the street on the eastern side.<sup>12</sup>

Those first walls and fort of the city were torn down by Venetians in 1412. The city was of strategic importance for Venetian and Austrian estates in the frontier areas of Istria, so financing of a new fortification system was approved in 1458. The new walls included the western part of the city, named 'villa', which is a term for village. The new walls were partially and in segments built on old walls. In the western part (edge) of the city, these walls were quantitatively preserved more, thanks to the massiveness of their structure. Here, the city was more exposed to siege because of the mild slope of the terrain. The city gate was also positioned in this part of the city, named St. Martins gate. Next to the gate, a five-edged tower, named St. Martins tower, raised during this period, is preserved in its full height till today.<sup>8</sup>



Schematic plan with street names



The walls were lowering down from the Tower of St. Martin to a four-edged tower whose structure was covered by volume by a residential building built in the 17<sup>th</sup> / 18<sup>th</sup> century.

The remainings of the wall were never discovered but the former situation has been reconstructed with the help of the Veduta of the City and the cadastral measurements from the 19<sup>th</sup> century. On the canvas, the western perimeter of the city is displayed with five towers, where the southernmost tower is shown positioned somewhere on the route of today's Garibaldi street. The axle of the wall is continuing from this tower to the next tower, named St. Leonard, on today's entrance to the Villa street. The wall changed direction to the northeast where traces of the wall were found. From this point the walls were raised on top of old walls and continuing towards the **main city gate**, positioned on today's entrance to the Socolo street. The gate was shown on the Veduta of the city of Buje (mid-18th century), but are not shown in the French cadastral measurement so it is assumed it was torn down in the second half of the 18th or at the beginning of the 19th century.

Further to the south, material evidence of the wall is rare. The perimeter can only be assumed and drawn by the sequence of buildings, built in the 17<sup>th</sup> and 18<sup>th</sup> century, leaning on the wall with their southern facades. Estimated remains are found to the south of the dead end of the street Piazza dell' Erbe. Further to the south, on the edge where Strada Longa and Belvedere are changing direction towards the north, material remains lies between the two streets.<sup>8 12</sup>

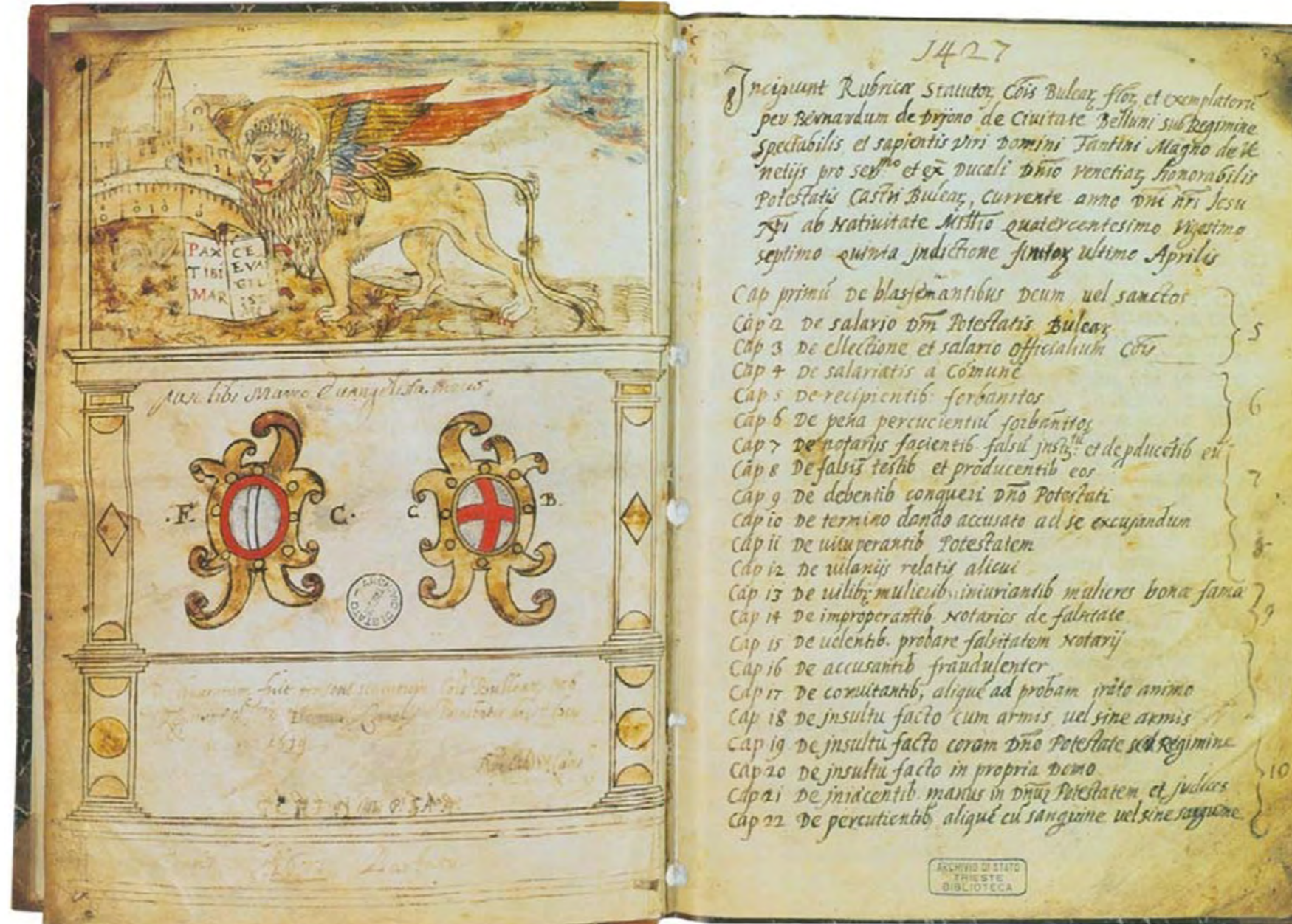


Figure 14, Front page of the Cachet of the Commune of Buje, 1427.

Traces of the wall on the western peripheral side were found on two cadastral particles to the south of Piazz dell' Torcio, but torn down in 1964. Several particles to the north indicate the existence of remaining city walls and the remains of a tower were found where Strada Longa meets Carducci street. On top of the tower an east facade of a baroque palace was built in the 18th century.<sup>9 12</sup>

In the French cadastral measurement, the area north of this part is mostly unbuilt and shows only two buildings continuing the sequence. The northeast edge of the core was where a tower was positioned because here is where the city walls changed direction to the west. The positions of the northern perimeter of the walls built after 1458 were never archaeologically determined but they were built on the perimeters of the medieval walls. Proven positions of towers are also found on the ends of Matthias Flaccisu Illiricus and the northern end of St. Servolo Square. By analogy it is assumed that the walls stretching through the northern area lay under the northern facades of buildings built on the base of the city wall. Based on the characteristic callosity of the base, the perimeter of the walls is indicated on several particles on the northwest. It is likely that the middle and western party of the city ensued by gradual urbanisation, while the eastern was urbanized by plan.

During the 18th century, the fortification system of the inner city is gradually losing its function. "The time of little fortified cities is over." This is documented by the writings of the Podesta to the Venetian Senat, where he reports about misuse of the walls in 1753. On the Veduta of the city, the western part has a visible fortification system, while on the eastern there are visible residential structures.

In the 17<sup>th</sup> and 18<sup>th</sup> century, the old city walls were used as foundations for housing units, forming a continuous sequence on the east, west and north the perimeter of the city. On the northern edge, smaller city blocks were thus expanded.<sup>8 12</sup>

# Initial expansion outside of the city walls and another phase of fortification (The Square of Liberty)

The population of the city grew, free space in the inner city was scarce and another active city center appeared already in the middle ages. A document from the year 1272 states "actum Bulleis apud portam". In 1301, at will of the Small and Big Council and of members of the commune of Buje "a public assembly (...) in the usual place in front of the city gate of the city of Buje" took place. On the 25<sup>th</sup> of April and on the 16<sup>th</sup> of June 1306, during territorial dissensions with Piran, a meeting was held "in front of the city gate of Buje" with the emissary of Piran. Upon establishment of the new Venetian government, a new city loggia was built. The Podesta of Buje declares a verdict in 1450 while "sitting in the new city loggia, in front of the city gate".

The old city loggia was still positioned on the main city square, proven by the mention by Tommasini. By mid-17<sup>th</sup> century, the space in front of the city assumed city center characteristics, simultaneously with the old city center. So the Senat approves construction of new city walls in 1674, covering the space of today's Square of Liberty and northern parts of streets 1st May and Garibaldi.<sup>8</sup>



Figure 15, Former appearance of the Square of Liberty



Figure 16, Main city gate on today's Square of Liberty Art History Institute in Zagreb, 1965

## Presumed stages of construction and perimeters of city walls

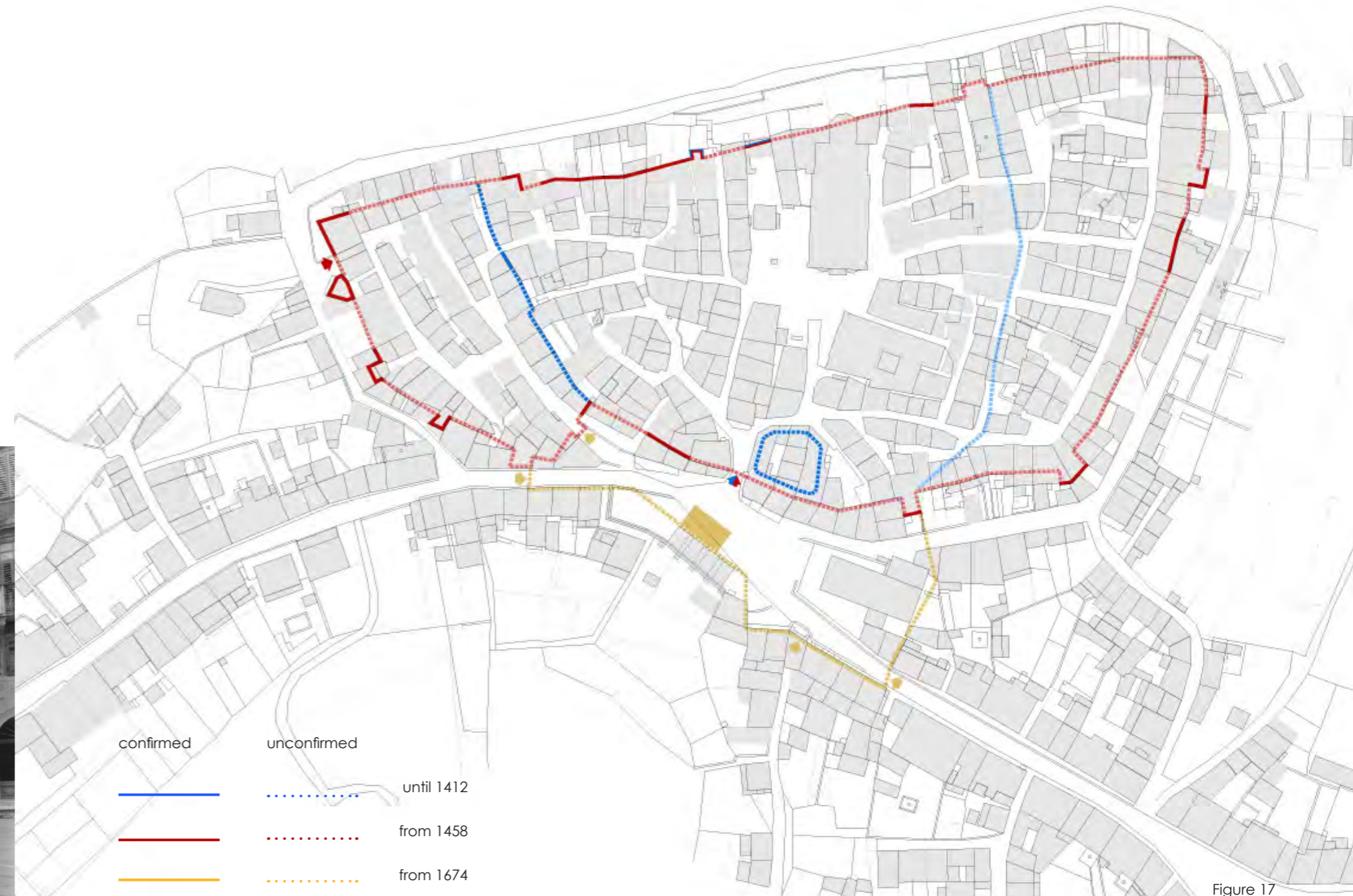


Figure 17

At the end of the 15<sup>th</sup> century the chapel on the position of today's Our lady of Mercy is built. By the next century it becomes a place of pilgrimage so the church is newly built in 1587. He dates the loggia to the period of the rule of the Patriarch of Aquileia. The existence of two loggias is not unusual. The one outside of the city walls had a business and trading function, and, if it was needed, could have been used as a temporary shelter and accommodation. In the case of Buje, the loggia outside the walls had an administrative function, as a place of direct contact of commoners and authority. The loggia inside of the walls gradually adapted a commerce function.

The space in front of the main city gate is documented on the Veduta where the walls begin app. on the south perimeter of the city walls from the 15<sup>th</sup> century, cover the church of Our lady of Mercy on the east, extend to the west parallel to the south facade of the church, extending towards and covering the city loggia and closing the suburb with the connection to the south tower of the west fortification perimeter, mentioned earlier. Two gates are visible: first, next to the tower; second, across from the south facade of the Church of Our lady of Mercy. Parts of the city wall are also in the structure of the wall on both sides of the passage below today's Ethnographical Museum.

The building of today's museum is built on the position of the former city gate leading to the Chapel. These walls were significantly lower (almost two times) than the walls built in the 15<sup>th</sup> century, with no defense towers. Thus, they were not built to provide the function of defense of the city.

One document states 'walls supporting the square'. According to that, the conclusion is that the walls were built for the purpose of infrastructural organization of the area in front of the main city gate. During the 18<sup>th</sup>, or at latest, the beginning of the 19<sup>th</sup> century, the area of the suburb was expanded again towards the south by building a massive substructure on four barrel vaults. The fortification epochs of the city along with the structures found by archaeologists and proven to be part of the old fortification system are shown on the 'Presumed construction stages and perimeters of city walls' made by the Faculty of Architecture in Zagreb. In the second half of the 19<sup>th</sup> century, the square is expanded towards the west.<sup>8 12</sup>



Figure 18, Former appearance of the substructure and Square of Liberty from the south



Figure 19, The Square of Liberty as seen from the Church

## 1<sup>st</sup> May and Garibaldi Street

Today's appearance of the Square of Liberty came about gradually, initially at the end of the 18<sup>th</sup> century or beginning of the 19<sup>th</sup> century, when the southern substructure was built, and with the upgrade of the supporting wall towards the west in the second half of the 19<sup>th</sup> century. The first sequence of houses outside of the city walls (extra muros) happened in the 18<sup>th</sup> century south of Villa. Two approaching axes to the city were extending from the core to the east and to the west. The main approaching path from the roman Via Flavia was Vila Lama (today's 1st May street), on the east. The street is app. 200 meters long, with a steep terrain configuration.

The second path of spreading was today's Garibaldi street, divaricating west of the historic core and towards the coast of the peninsula. Throughout history, the road had an important role because of merchandise traffic and trade oriented towards Venice, going by sea from coastal cities Umag and Novigrad. The configuration of the terrain is more suitable than the configuration of the terrain on the eastern side. It extends in the direction of the terrain contours, with a difference in sea level of only 10 meters from the square of Liberty to the endpoint of the street, 350 meters further to the west. The insolation conditions for built structures are very good, making this street more suitable than Via Lama, in terms of living quality. Reambulations of cadastral measurements, ending with the one made in 1890 shows how the two streets grew.

In the reambulation from 1837, a water surface is visible at the end of Via Lama, named Contrada Lama. Surrounding Contrada Lama, buildings formed a funnel-like square.

From the former place of gathering, St. Servolo Square, through the Square of Liberty to the newly formed Piazza Lama, the city's main active center had dislocated. Piazza Lama (today's Josip Broz Tito Square) reached its culmination when the Parenzana was constructed in 1902. The end of the 19<sup>th</sup> and the beginning of the 20<sup>th</sup> century mark Piazza Lama as the main entry point to the city, a place of gathering, commerce and, later, administration. At the turn of the two centuries, the water surface was covered. Until the second half of the 20<sup>th</sup> century it was used as a pasture and a landfill.



Figure 20



Figure 21, Reambulation of the cadastral measurement from 1837.



Figure 22, Reambulation of the cadastral measurement from 1890.

In conclusion, the demographic growth caused expansions of the city through its former access paths on the west and on the east. The brunt during the 19th century, marked by Austrian and French rule, was on Via Flavia, leading to Trieste. For the city this meant that Via Lama, leading from Via Flavia, was going to be more representative, contain more buildings of public use and, in the end, form a new city center.

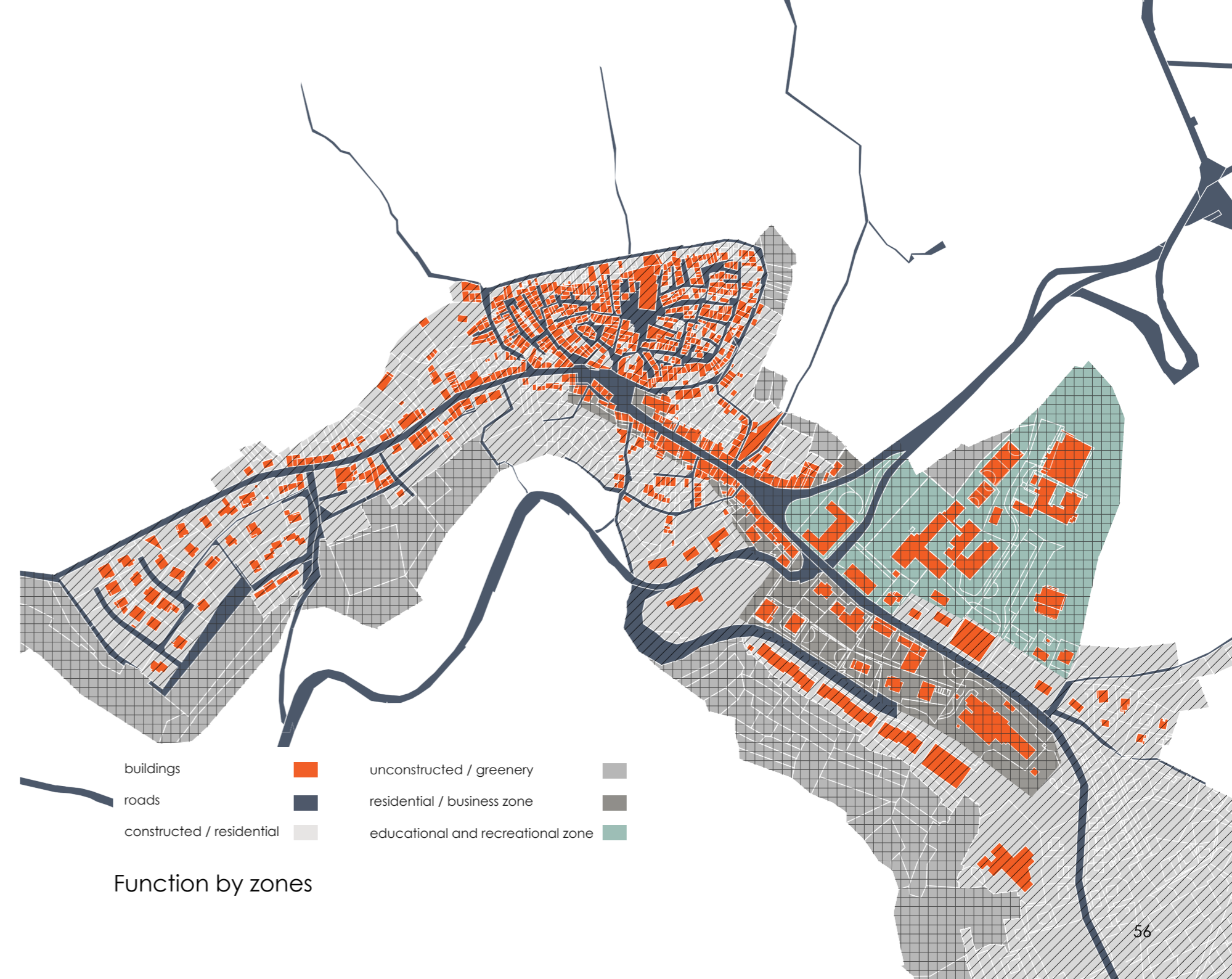
Contrada Lama, splitting Via Lama in two, formed a square later named Piazza Lama, which became the new active city center. The Garibaldi Street, that is, the San Giacomo suburb, developed after Via Lama. Most of buildings in the Garibaldi Street are made for residential use, although worth mentioning is the influence of the Pia Casa di ricovero for the development of the street. Around the same time, the production line for the Oil refinery is built and was expanded at the beginning of the 20th century. The residence of the purchase and sale cooperative Cooperativa Operaia di Trieste Istria e Friuli was built in the street in 1905.<sup>8</sup>



Current state

The state of the historic core of Buje is bad. The process of decay began in the period after World War II as a result of mass Italian emigration and is further assisted by the formation of new urban areas because of which the historic urban core eventually lost function. A large number of buildings is slowly deteriorating due to lack of maintenance and are unlikely to be reconstructed because of the lack of funding. The consequence is the slow deterioration of the urban core. Istrian settlements have had numerous problems with parking spaces which are taking up space in the centres and further damaging the building heritage. Most such cities have made it illegal to use historic cores for car traffic, as did Buje, but since the average age of its inhabitants is becoming higher, this rule is overlooked most of the time.

Consequently, Buje is in jeopardy of losing value as a historic centre. Individual buildings have been torn down or degraded by the successive constructive upgrade mostly done in the second half of the 20<sup>th</sup> century.



Function by zones



1\_entrance to the city, Josip Broz Tito Square



1: 5 000



4\_Buje Open University and the Square as seen from the West



1: 5 000



2\_a communist monument on the Square



3\_a look at the atrium of the Buje Open University



5\_traffic regulation



6\_1<sup>st</sup> May Street as seen from below



7\_reconstruction of the street in the Summer of 2018





8\_The view at 1<sup>st</sup> May street from the Square of Liberty



1: 3000



11\_The Mother of Mercy Church (Crkva sv. Marije Milosrdnice)



1: 3000



9\_The ethnographic Museum; the only museum in the city



10\_The approach to the Square of Liberty



12\_The Mother of Mercy Church with its surroundings



13\_The view from the former city gate



14\_The viepoint from the Square



1: 3000



18\_parking area of the inner city



1: 2 000



15\_Passage to the old Structure



16\_An old structure oriented to the South



17\_Villa Street



19\_St. Martins Tower



20\_the former Cemetary



21\_ruin on the northern outline of the City



1: 2 000



22\_reconstructed approach from the Belvedere Street



23\_the view at the northern part of Istria



24\_the Belfry of the St. Servolo Church



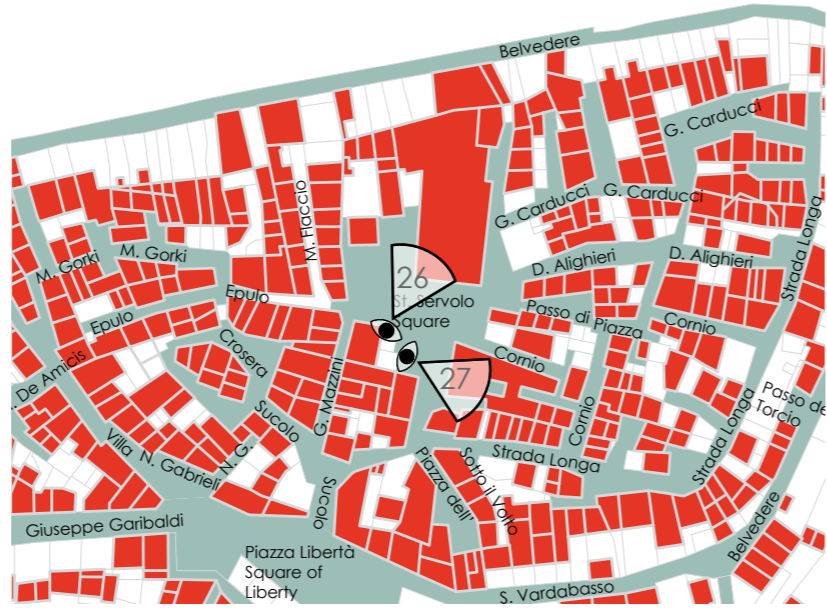
1: 2 000



25\_historic remains on the facade of the St. Servolo Church



26\_front facade of the Church



1: 2 000



27\_former palace used as an educational building



The view from the St. Servolo Church Belfry



29\_a frequent sight in Buje, a ruin used as a parking space



1: 2 000



32\_Ante Babic Street



33\_Giuseppe Garibaldi Street



1: 5 000



30\_traditional istrian architectural elements























31\_ambient of the inner city

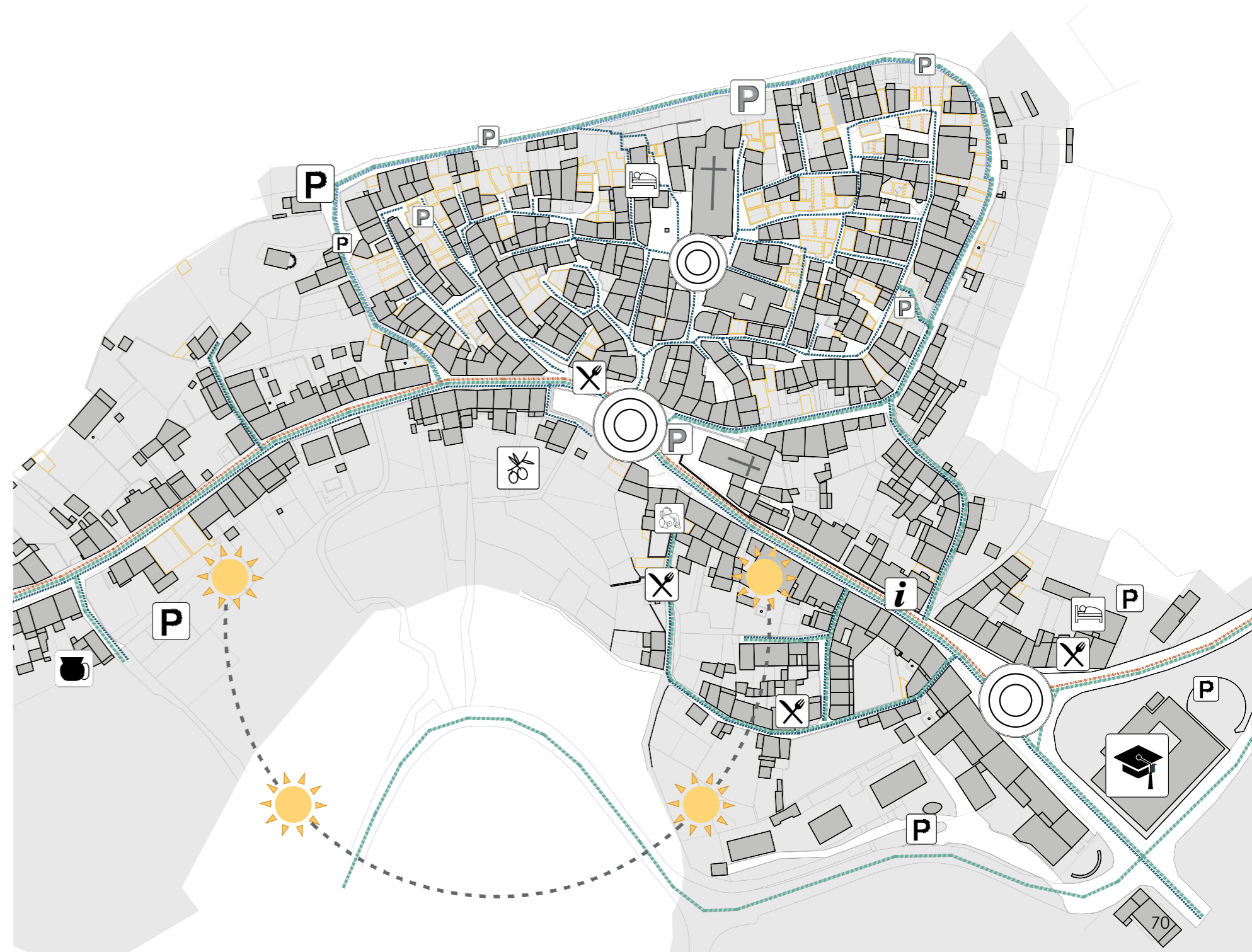


34\_Giuseppe Garibaldi Street



35\_an abamndoned oil rafinery

-  city centre
-  church
-  restaurant
-  tourist board
-  hotel
-  art gallery
-  wine road
-  arranged parking
-  unarranged parking
-  educational institution
-  olive grove
-  viewpoint
-  building
-  ruin
-  ruin with no remains
-  traffic surface
-  pedestrian path
-  car road
-  bicycle path
-  constructed settlement area



Arrangement of space and functions in the city\_m 1:2000

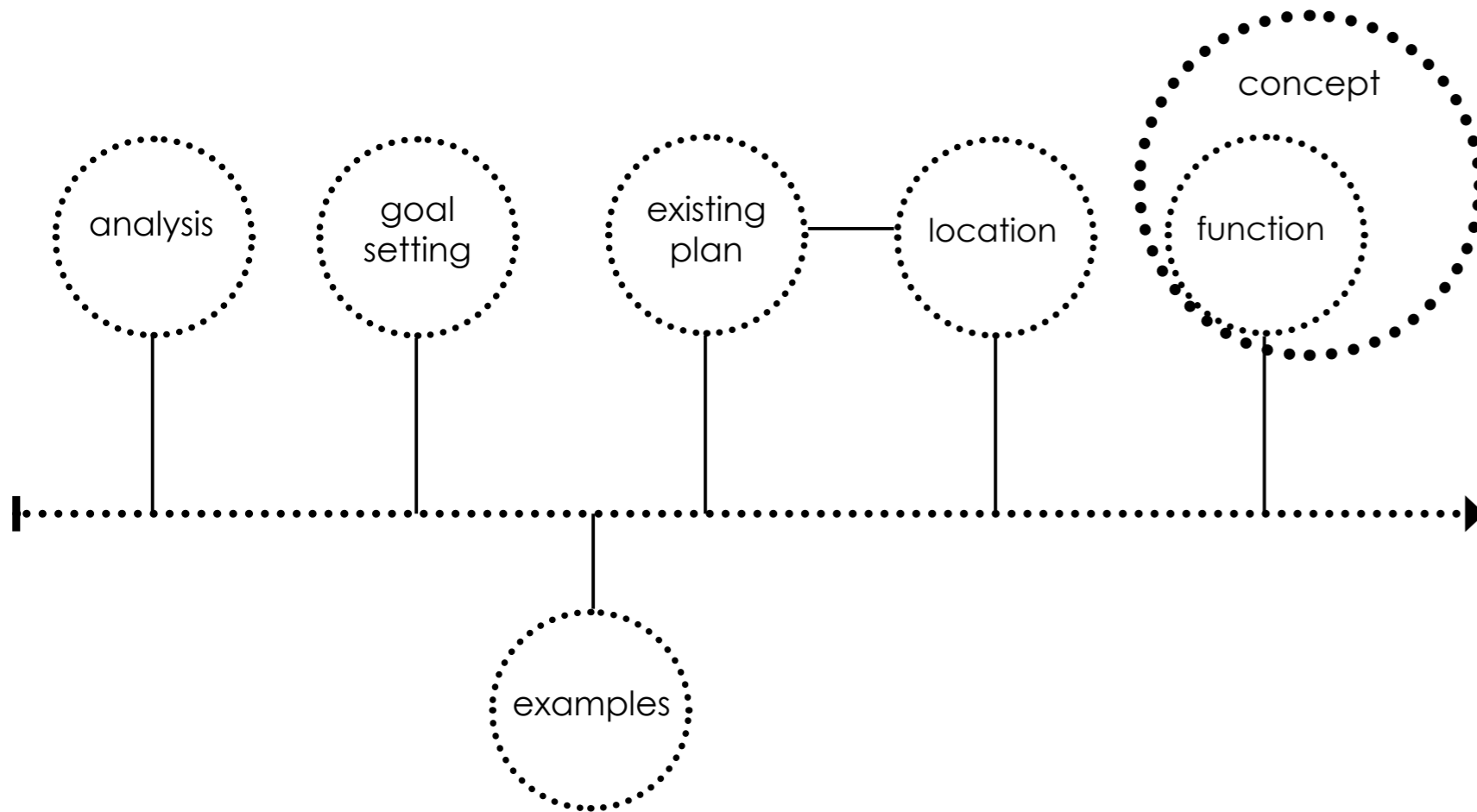
*'Novac jest važan pri obnovi povijesne jezgre, ali ljubav prema gradu je važnija. Shvaćanje da je identitet grada stvoren dugim povijesnim razvojem i da je grad bez povijesti i njenih tragova grad bez duše je važnije. Grad može obnoviti samo ljubav njegovih građana, razumijevanje za njegove vrijednosti i respekt za njegovu povijest.'*

*'Money is important for the restoration of the historic core, but love for the city is more important. Understanding that the city's identity is created by long historical development and that a city without its history and its traces is a city without soul is more important. A city can only be restored with the love of its citizens, an understanding of its values and respect for its history.'*

*Vladimir Bedenko*

# Approach

# Scenario



The attempt of the project will be to carry out the goals defined.

The goals and the scenario are meant to interact with one another throughout the making of the concept.

The scenario represents the gradual timeline of the process of the decision making regarding the concept which will be derived from the context and goals which will be defined.

# City characteristics analysis

The analysis presented in figure n.n is used to summarize the positive and negative aspects of the existing state of the city and is divided into several segments which must be defined in order to identify important improvement strategies. This section represents a part of a swot analysis of the characteristics of the city of Buje, made of internal factors (strenghts and weaknesses) while external factors (ooportunities & threats) will be presented in following sections, conceptually complementing the paper.

+	-
<b>location</b> <ul style="list-style-type: none"> <li>a preferable geographical position in terms of proximity of roads leading to coastal cities, big cities in neighbouring countries, airports and railway stations</li> </ul>	<ul style="list-style-type: none"> <li>insufficient usage of the potential of the position with respect to development of logistical activity</li> </ul>
<b>demographic</b> <ul style="list-style-type: none"> <li>multiethnicity and bilinguality</li> <li>share of work-capable population higher compared to county and country</li> </ul>	<ul style="list-style-type: none"> <li>negative demographic growth</li> <li>average age of population statistically higher compared to the county and country</li> <li>emigration of the young and educated</li> </ul>
<b>natural features</b> <ul style="list-style-type: none"> <li>good climatic conditions with 2 400 sunny hours a year</li> <li>terrain suitable for agricultural development on a higher scale</li> </ul>	<ul style="list-style-type: none"> <li>unorganized usage of agricultural space</li> </ul>
<b>economy</b> <ul style="list-style-type: none"> <li>developed trade, catering, industry and crafts</li> <li>a high number of family agricultural businesses</li> <li>agriculture as a significant source of income for the population</li> <li>developed olive growing and viticulture</li> </ul>	<ul style="list-style-type: none"> <li>unsatisfactory overtaking of traditional knowledge and skills by younger generations</li> <li>low share of young population as bearers of trades, high number of family trades with only one active member</li> <li>big uncultivated areas</li> <li>fragmentation of agricultural land into smaller units, low average surface of a single agricultural unit</li> </ul>



# Setting goals

<p><b>infrastructure</b></p> <ul style="list-style-type: none"> <li>• proximity of important institutions, reachable by foot</li> </ul>	<ul style="list-style-type: none"> <li>• insufficient and suboptimal arrangement of public space</li> <li>• scarcity of parking spce</li> </ul>
<p><b>tourism</b></p> <ul style="list-style-type: none"> <li>• tourism potential</li> <li>• high quality products from the area famous in the region (olive oil, wine, honey, vegetables, meat, mushrooms, truffles, cheese)</li> </ul>	<ul style="list-style-type: none"> <li>• mostly on the coastal area (Kanegra tourism resort)</li> <li>• lack of appropriate venue for touristic events</li> </ul>

Defining the goal of the project is the first step of finding a suitable solution. The objective of the project is to resolve some of the existing problems associated with the current state of the area as well as exploiting the advantages of the area, and is based on the following goals:

utilizing the existing geographical potential

defining intervention location

intervene on an architectural and infrastructural level

finding appropriate functions derived from the context of the area and its potential economic progress

taking advantage of the natural features

creating a recognizable landmark and brand of the city of Buje

The analysis provided a basis for devising a suitable solution in form of a project intervention.

The negative aspects listed in the analysis will serve as guidelines for what to focus on while thinking of a concept. They will represent obstacles that must be overcome and will contribute to solution formulation from the section 'goal defining/setting'.

# Examples

The following chosen examples show, firstly, the urbanistic interventions of certain areas, and secondly, an architectural one.

They serve as models for adapting and transforming areas specific in their history, context and materialization. We will try to work with them within our context and the conservative restrictions that are provided within the Conservatory Supply of Buje.

The aim of showing them has been to accentuate the proper usage of three guidelines for revitalization of public and architectural heritage:

1. helping build vibrant communities
2. reinforcing the local economy
3. greening public spaces to reduce environmental impacts<sup>13</sup>

## Garden in Calle Coso

Architects: Cómo crear historias  
Location: Calle Coso, Murcia, Spain  
Area: 4436.0 m<sup>2</sup>  
Year: 2015.

Built in the place of a 'void', the project in Calle Coso is intended to make up for the lack of several crucial elements at once: a public city space, a garden, as well as a business space, which is now found under the green walkway seen on the picture XX.

After a snow storm in the 50's of the past century, many houses in this location had collapsed and left an empty space, through which people eventually formed 'wild' walking paths. These paths were traced and in this way a continuous public space was developed in the form of walkways, further enhanced with greenery.

In order to utilize this vast green walkway in a smart manner, architects developed a water collection system which serves to supply water to the entire garden. The green color of the floors was used to complement the colors of the plants, as well as to emphasize the contemporary intervention in contrast with the old buildings surrounding the space.

Figure 23





It may be noticed that this project lacks space and content where people can spend time, protected from the sun by niches. However, with further investigation we find hidden spaces on the outskirts, shielded from the sun, offering workers and passersby a pleasant area to enjoy a moment in the garden.

The unusual decision to color the new floor in the same way as the surrounding houses has surprisingly shown to be successful. The comfort and warmth of the wooden floor in contrast with the roughly plastered facade complements the fact that these two elements were born in two vastly different time periods.

The partially covered and shaded spaces, colored with green and surrounded by flora, serve as an invitation for leisure time and for enjoying the extraordinary view of the landscape. <sup>14</sup>

Figure 24



Figure 25

# Example

## Crikvenica Square

Architects: NFO  
Location: Crikvenica, Croatia  
Area: 11.974 m<sup>2</sup>  
Year: 2013.

Figure 26

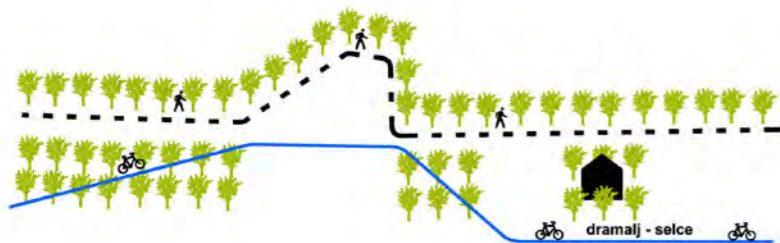
A project by the architectural firm NFO is a great example of a contemporary intervention within an old structure, in Crikvenica, Croatia. The basic idea of this work was to free up the surface of the square, leave it for pedestrians to use, and to open it up to the view of the sea. This was achieved by placing all elements sideways, while the walking and biking pathway are gradually translated into the surface of the square. The traffic road was built in the form of waves of stone, in order to diminish the negative impact of the road on the built environment.

In order to form a space which is interesting for pedestrians, elements which would activate it is enhanced, such as hospitality objects, an infocenter, beaches for swimmers, as well as spaces for public events. Furthermore, a pleasant atmosphere is created under tree tops and roofs, akin to small pavilions. Materials and colors of the elements, with their reserved nature, give respect to the existing architecture, the value of which remained undisturbed.

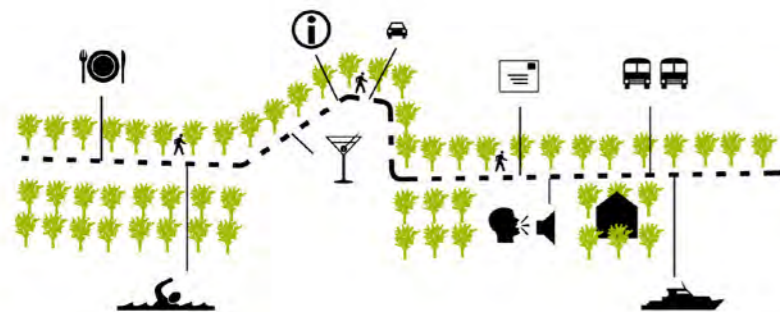




Ensuring open views for pedestrians



Shaping a main road in wave form for the purpose of slowing automobile traffic



Incorporating new functions to revive the square <sup>15 16</sup>

Figure 27



Figure 28

# Example

## Annex: New Visitor Center of Cluny Museum

Architects: Bernard Desmoulin Architecte  
Location: Paris, France  
Area: 900.0 m<sup>2</sup>  
Year: 2018.

This example is used to illustrate a contemporary approach to annexing a new building to an existing one. In such a situation, potential problems are considered: the preservation of the existing building, unobtrusiveness, and the harmony of the relationship between the old and the new, both in terms of shape as well as material.

The existing building is home to the Museum of the Middle Ages and contains fragments of architecture dating from the 1st century. The extension in the form of a visitor center has been annexed in the 21st century. It represents a new and more spacious entrance with supporting functions.

In the words of architects, the annex was built with the intention to add 'glow' while also diminishing the impact on the existing structure. The goal was to achieve an elegant transition between different elements, i.e. to unite fragments of architectural history. The attempt was also made to approach traditional sloped roof architecture, as well as to soften the appearance by separating them into two volumes. Another noticeable feature is the openness of the ground floor towards the street, in contrast to the upper floors of the building.

Figure 29





It is important to emphasize the way in which the annex was done: the new building was integrated into the layout of the existing one, telling the observer that these are two different buildings. If the annex had been done in a seamless manner, it would have been suggested to the observer that he is looking at one building, which is not the case here.

The external staircase outlines the levels of the building and activates the facade with its dynamic nature.

With one view we can experience the essence of the building, through observing the historic layers which date from the antique to the contemporary architectural elements.<sup>17</sup>

Figure 30



Figure 31

# Existing plans and propositions

The Institution of the City of Buje along with architects, economists and urban planners have been dealing with issues of restoration and infrastructure of the city to make sure the structures that make up the inner historic core are protected, most of all from vibration and further destruction caused by vehicular traffic. It is a problem many istrian cities are dealing with, as they were not designed for automobile traffic. The streets are narrow and stone, the value of which is equal to the value of the housing structures of from the beginnings of Buje.

The population of istrian cities depends on automobile traffic as they are not connected via public transportation to oneanother.

Part of the city's revitalization process involves the reorganization of traffic within the city center. The Institute of Architectural History of the Faculty of Architecture of the University of Zagreb, as part of the concept of revitalization of the City of Buje, has created a new organization of traffic through the city.

The new plan excludes the central parts of the city as motorways. Instead, it propounds the main means of transportation within the old city to be exclusively pedestrian and cycling. The plan proposes that there be new roads made. One road would connect to the 1st May Street after the Square of Josip Broz Tito on the east side and stretch out to the east where it would join to the Belvedere street on its northern part.

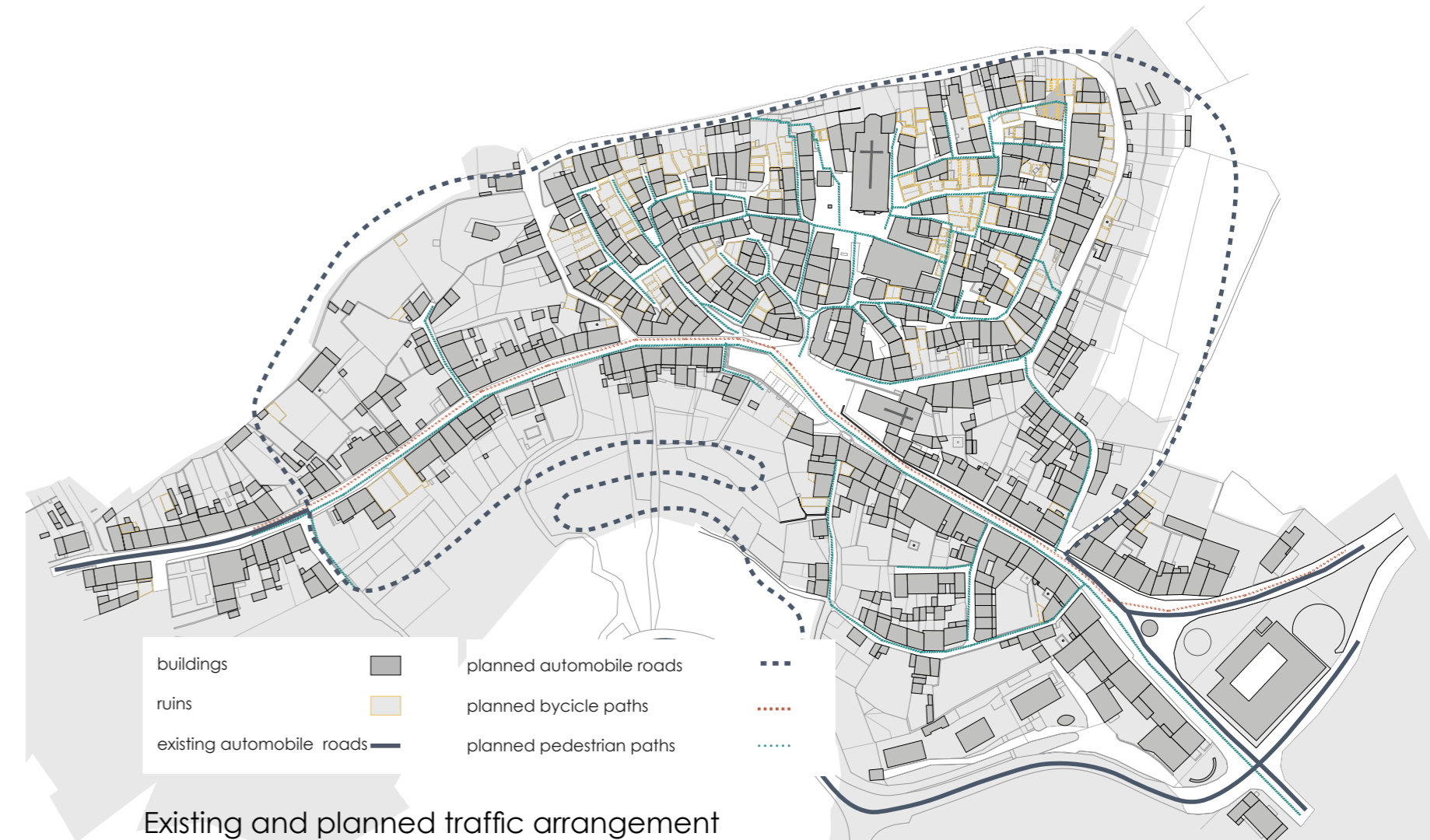
The route would branch out from the far west part and travel south until it reached Garibaldi Street on its middle part. The section of the two roads would mark the entrance to a public garage which would then continue to stretch towards the south where it would finally be connected to the state road, south of the old town.

The unorganized allocation of transportation vehicles all along the city's historic centre, especially on the Square of Liberty, is the reason the primal function considered for implementation was a parking garage.

The proposed garage contains enough parking space to provide for the inhabitants of the historic core as well as for seasonal visitors to the city. It took the form of a one-level serpentine with a green roof. The roof structure supports the ground above and the southern facade is planned to be open and in that way it is treated as a serpentine-street.

One of the objects of the concept is to prevent further degradation of the structures within the city. It provides an intelligent soultion which to this day remains unrealized.

The plan designed by the Faculty will be the refernce for this thesis. The proposition solves the problem of the parking space on the Square of Liberty overcrowding the entire surface of the Square. What was once public space will be once again freed up.





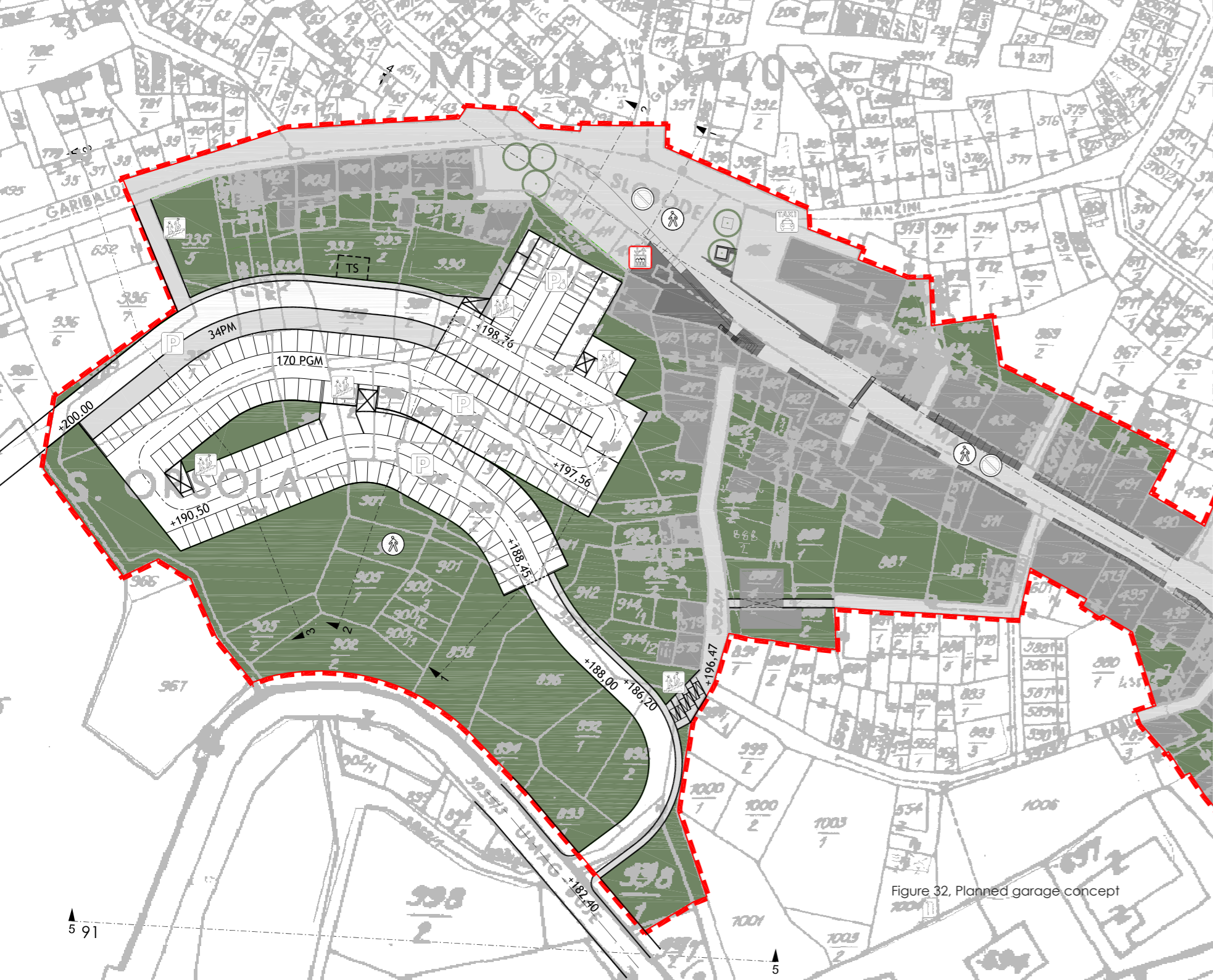


Figure 32, Planned garage concept



Figure 33, Planned garage concept

# Intervention location

The existing city administration proposals in cooperation with the Faculty in Zagreb set the ground for further intervention.

Moving the car traffic away from the center has enabled the planning of public content in the area that attracts the largest number of visitors due to its altitude and proximity to the old town core.

The old town core, i.e. the St. Servolo Square is functionally complete. Visitors and residents are offered a tour of the old bell tower of the church from which a famous viewpoint ensued. The church alone attracts many visitors, and sometimes is used as a venue for concerts. As part of the square there is the old palace which is used by various schools as a recreational hall.

Therefore, **the Square of Liberty** remains as an area which would be suitable for intervention. It represents the entrance to the old city core and is historically relevant for the city. In the past, a city Loggia was positioned in the middle of the Square, described in the 'History' section.

# The Square of Liberty

The Square is an area most often used for a variety of events in the city, such as:

## courses & workshops

Decoupage courses

Sewing courses

book presentations

## camps

Children's Summercamp

## exhibitions

## lectures & presentations

## concerts

## festivals

Days of Grapes (Festa dell'uva Buie)

Days of the City (Giornata della citta')

Istria folklore fest

..but hasn't got a place for venues which are usually held in the Church or on the terrace of the restaurant. Additionally, the Square of Liberty is crowded with automobiles, blocking views for pedestrians and making the area seem unwelcoming to inhabitants and visitors.



# Launderette

Bordering with the Square of Liberty on the south side is a building mentioned in the segment 'History' and shown on the photographs of the existing state. It is a structure built in the 19th century made to support the Square of Liberty. It was used as a launderette by the women of the area who had no access to clean water. When the city constructed its water supply network, it lost its initial function and to this day remains unused and unreconstructed.

The city's administration took this structure into consideration when proposing possible methods of revitalizing Buje. The structure was to be redesigned to a cafe bar as well multifunctional spaces.

In february of 2018 the structure and its surroundings was being prepared for redesign.

**The historic wall from the 17th century preambulated the northern wall of Launderette but it is unlikely there any remains of the original wall inside of it, as it has been externally explored by archeologists.**



Launderette consists of four stone barrel vaults with openings towards the south. The inside of the structure is separated into four areas totaling to 140, 2 sq m. The former launderette along with the wall making the southern border of the square were entirely constructed from stone.

The proposed social and public functions could find a reasonable amount of users and contribute to the historic and cultural awareness, but are vague and don't necessarily make for a space the city needs.



## Istrian house

The one-line row of houses in the Street 1<sup>st</sup> May is interrupted by a structure today used as a residential building. It was first shown in the cadastral measurement from 1819. The structure is accentuated in the space of the Square of Liberty. It is property of the City of Buje and used to have a direct entrance on the northern facade.

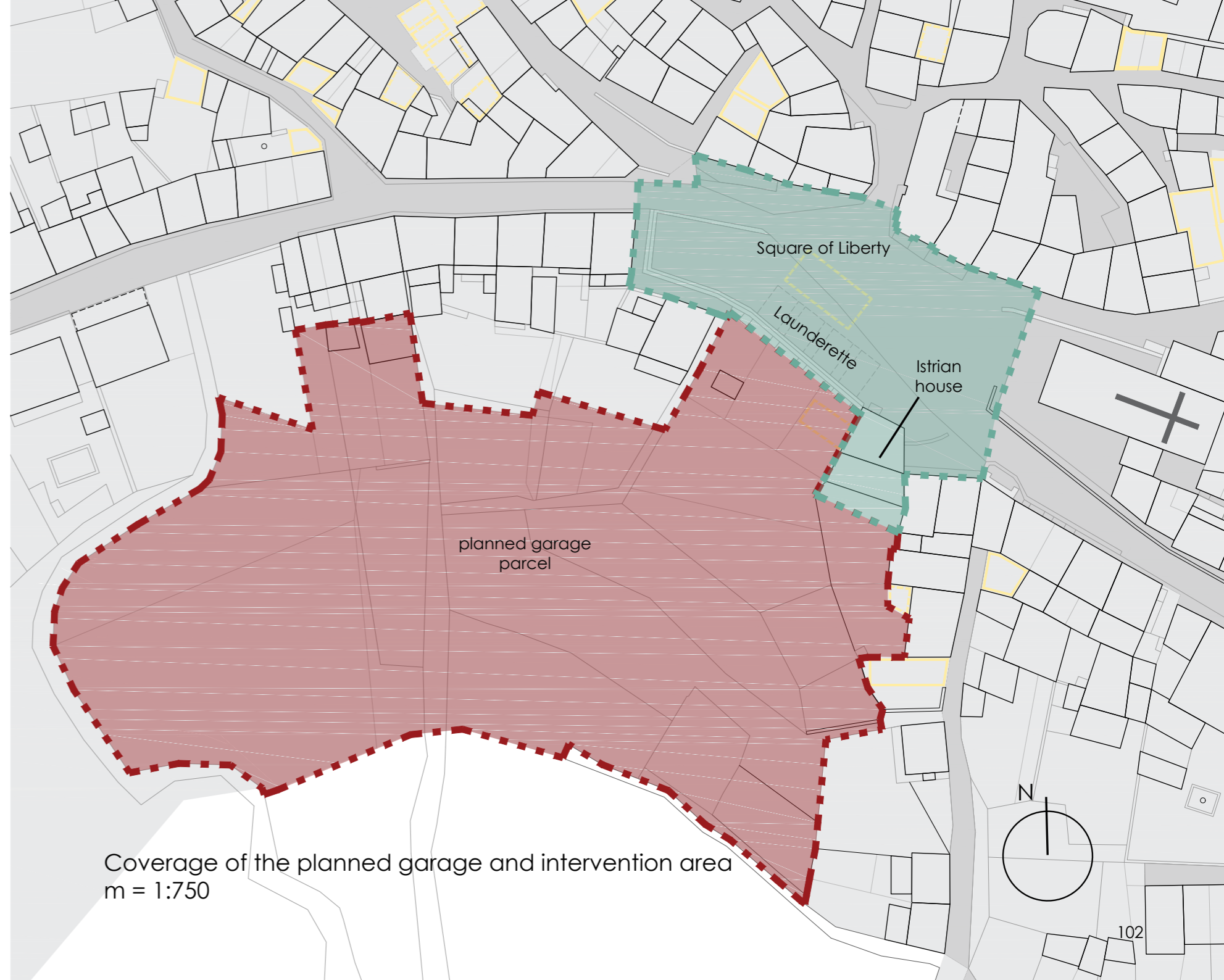
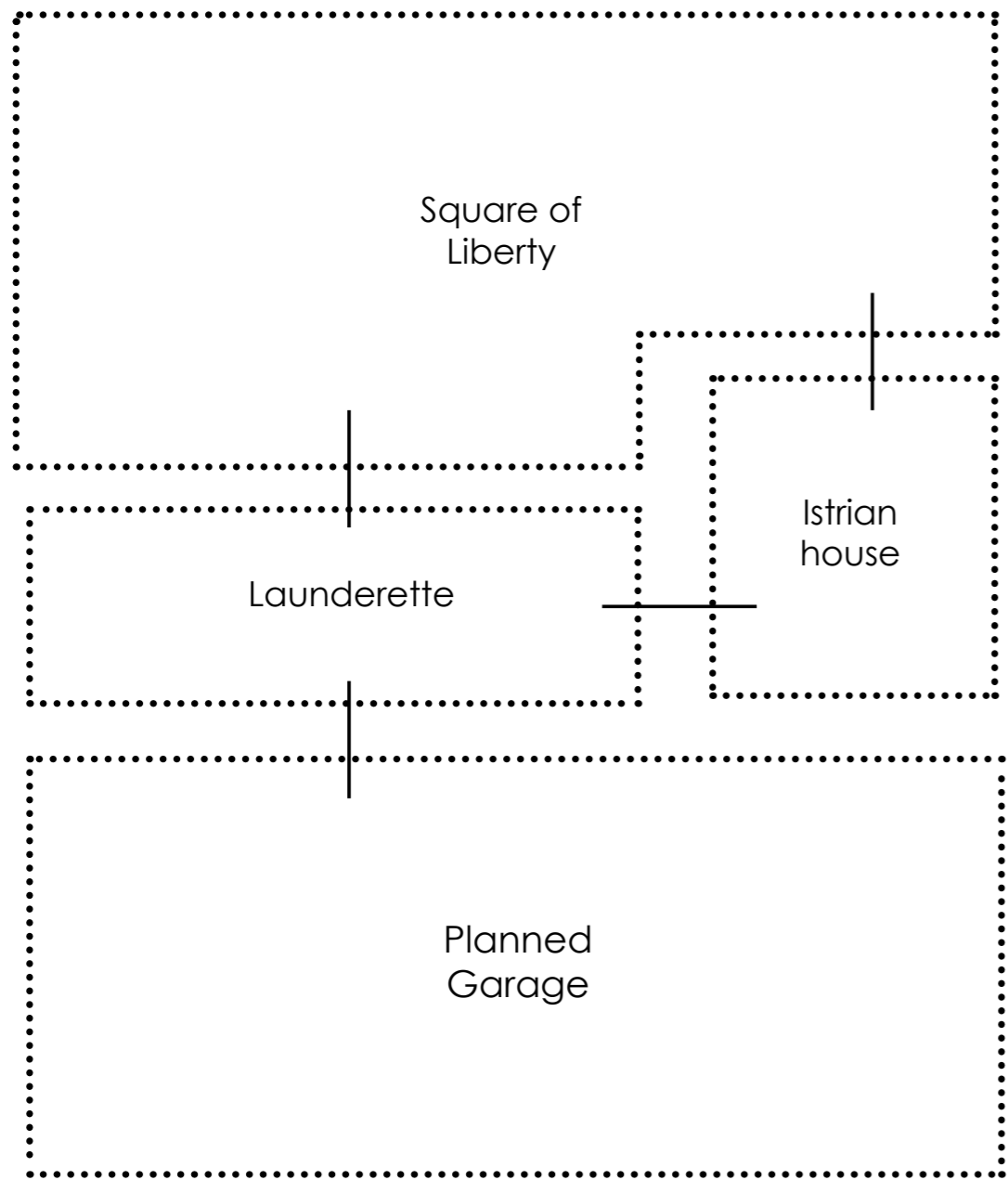
Besides it being connected to the Square, on its lower level it had an exit to the level of the Launderette. Therefore, this structure is a logical connector between the Square of Liberty and the subterranean Launderette. The level of the ground floor is lower than the level of the Square. The house consists of three levels and is representative of istrian residential architecture. Therefore, for the purpose of this thesis we will call it 'Istrian House'. The cadastral reambulation from 1975 shows an annex added on the south, dating to the 20<sup>th</sup> century.

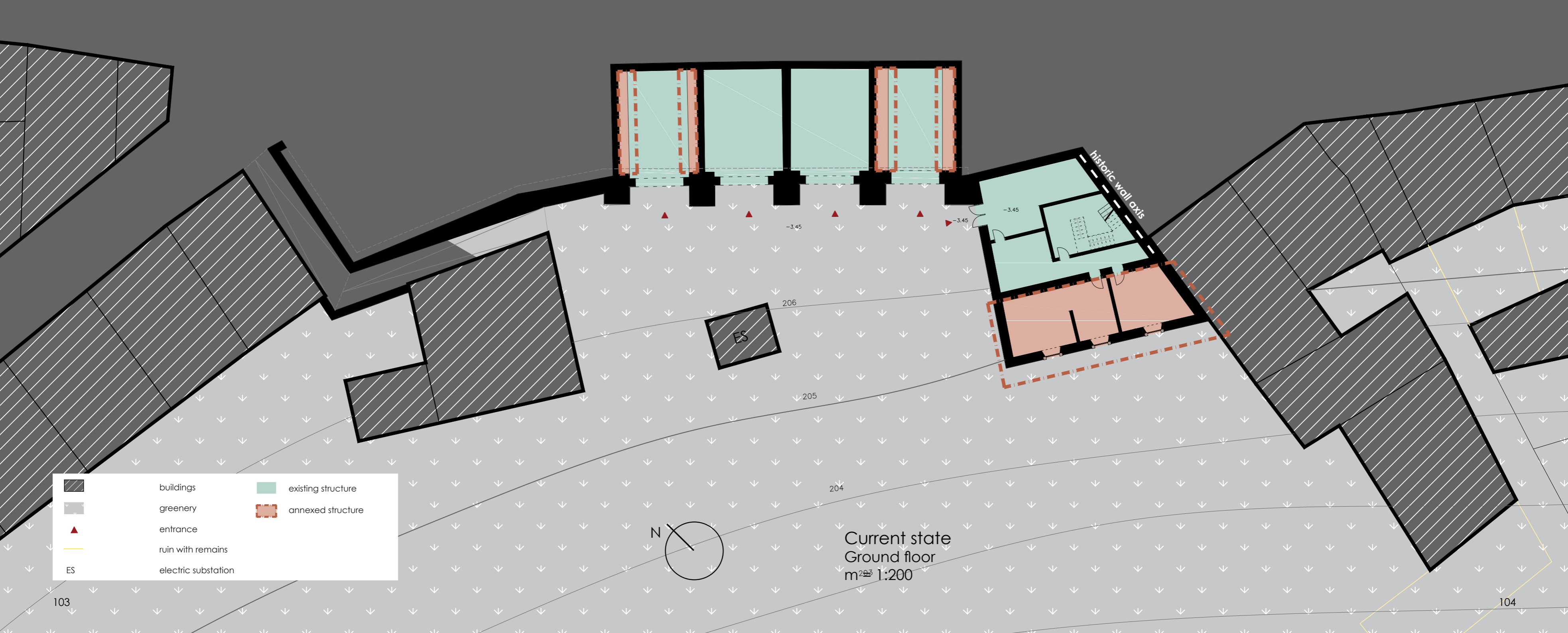
**The historic wall preambulated the eastern basement wall of Istrian house and there is potential for finding its remains inside the structure.**










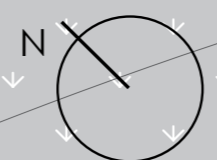


# Interconnection between locations





	buildings		existing structure
	greenery		annexed structure
	entrance		
	ruin with remains		
	electric substation		



Current state  
Ground floor  
m<sup>203</sup> 1:200

103

104

206

205

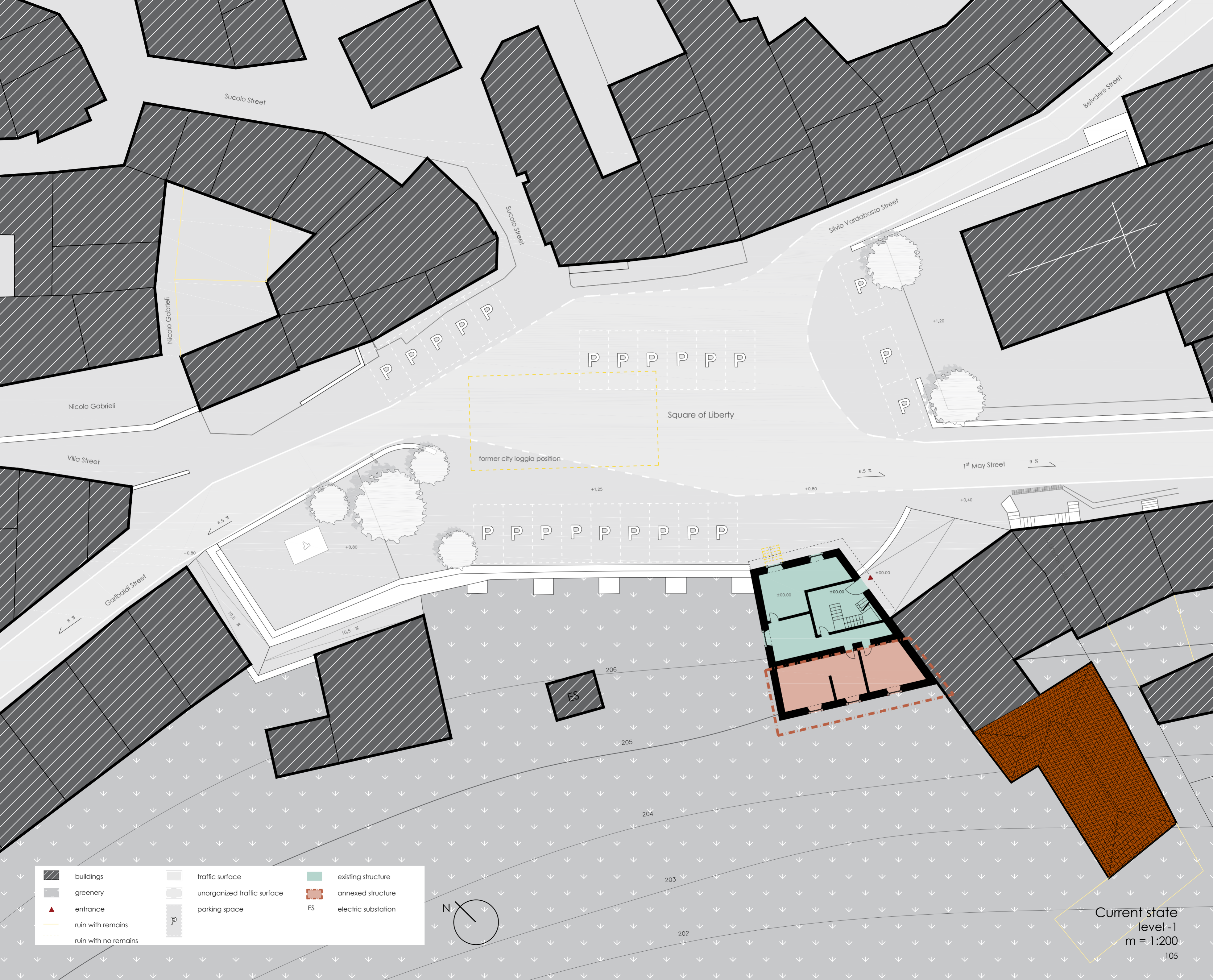
204

-3.45

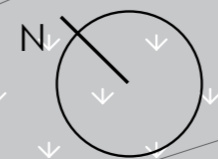
-3.45

historic wall axis

ES



	buildings		traffic surface		existing structure
	greenery		unorganized traffic surface		annexed structure
	entrance		parking space		electric substation
	ruin with remains				
	ruin with no remains				

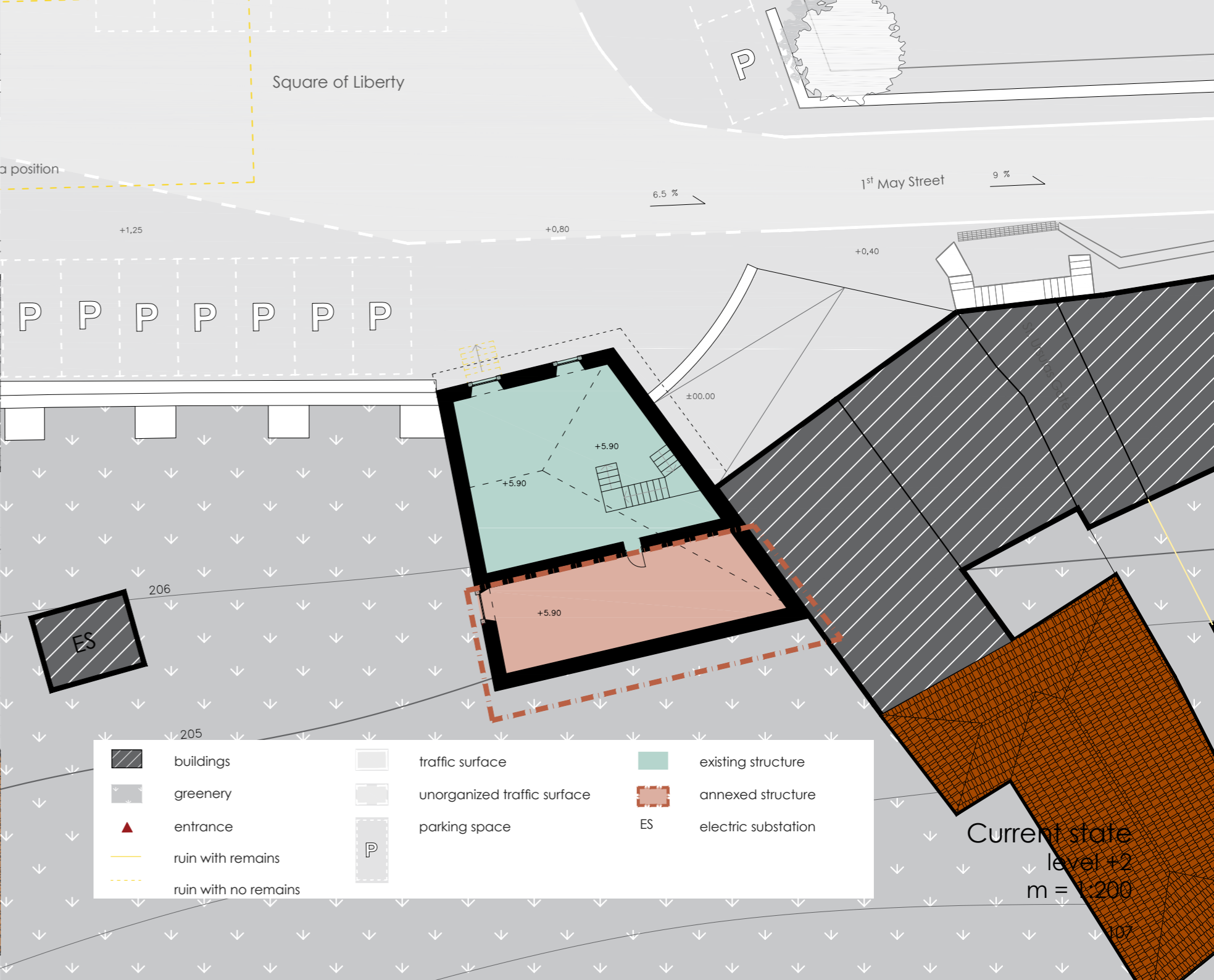


Current state  
level -1  
m = 1:200  
105





Current state  
level +1  
m = 1:200



Current state  
level +2  
m = 1:200

	buildings		traffic surface		existing structure
	greenery		unorganized traffic surface		annexed structure
	entrance		parking space	ES	electric substation
	ruin with remains				
	ruin with no remains				

Concept

# Function

The objective of this thesis is to recreate the image of the city by focusing on aspects that could be bettered and add value to the area.

Buje strongly relies on its **natural features** and has a strong potential for further development of **agricultural cultivation**, viticulture and olive growing. The parcel south of Launderette is marked as a fertile soil area.

To fulfill the goals we set as objectives for this thesis to be considered successful, I propose **exploitation of the fertile soil on the area and connecting that function with the function inside of Launderette.**

In the past Launderette spontaneously became a gathering point for the women in the area after they finished washing attire. It has a potential of gathering people with similar interests but should be fully used to advance Buje's capital.

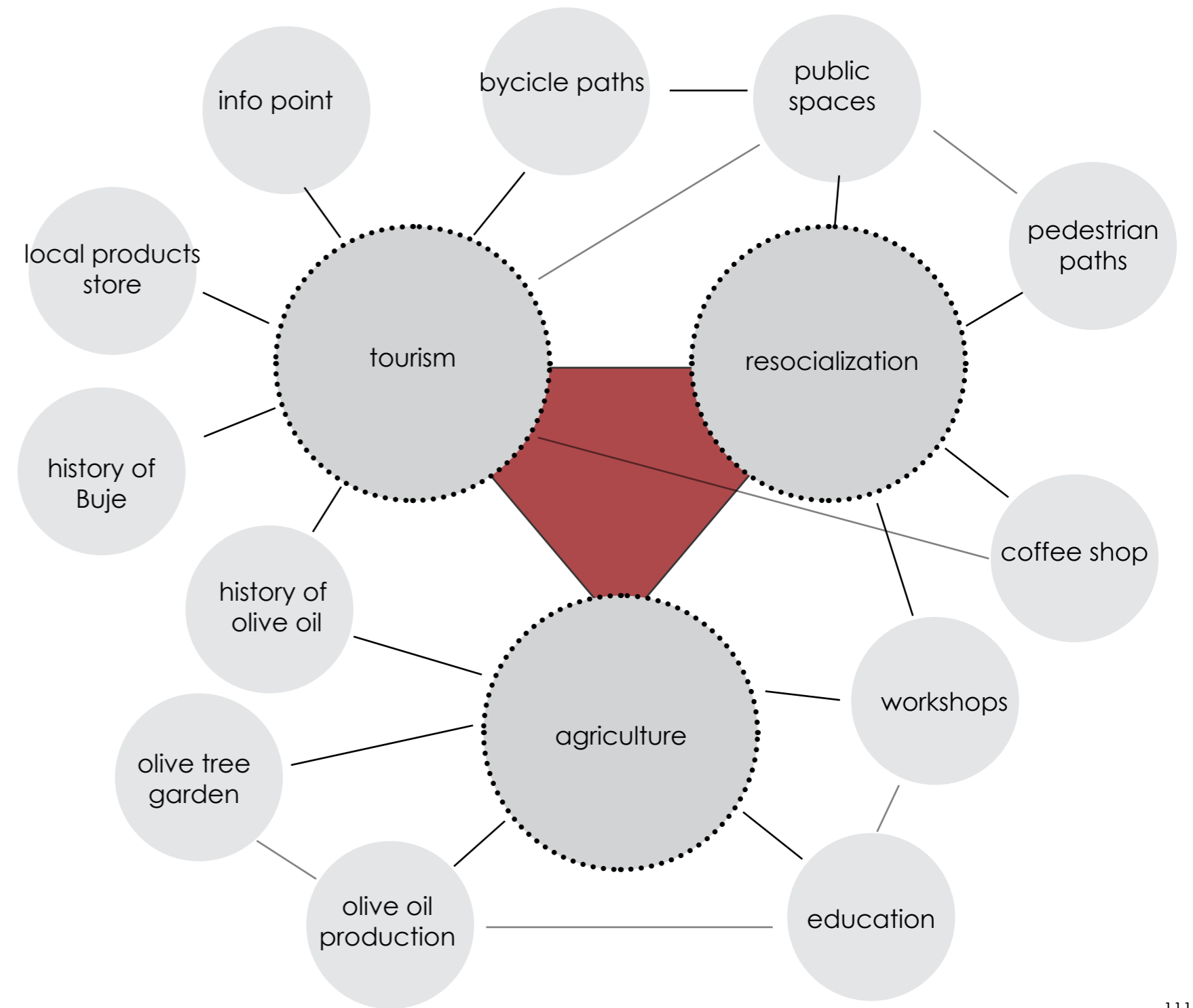
In order for that to happen, it will be turned into **a space for educating inhabitants** about the importance and processes of agriculture that are used on an everyday basis and on which Buje's economy heavily relies.

That function also has a potential of attracting tourists who can witness famous products in the making and the younger Istrian generation who lost interest for inheriting old traditions.

**Promotion of the city's most important economic branches** in a social manner, where colleagues and guests can discuss strategies and gather for educational purposes has an aptitude for revitalizing the city on many levels.

With this comes a variety of functions, derived from the analysis of the current state of the Square and missing spaces for venues. The functions are connected with three elements: agriculture, tourism and resocialization.

agriculture + tourism + resocialization



# History of olive oil in Istria

Phoenicians brought the olive tree in 16 bc to the greek islands and Romans spread it to their empire. Istrians have been growing it since 1<sup>st</sup> century bc. Today it has been expanded all over the world and can be grown even at 700 m above sea level. An olive tree can live up to several centuries, but the intensive olive growing age is about 50 years. Croatia has about 3 million trees on the surface of 25 000 ha and in Istria alone there are about 420 000 trees on the surface of about 1600 ha. The average yield per tree in the Istrian County is 5 to 10 kg, and the annual production of olive oil 200 to 400 t.

Olive growing in Istria has always depended on social conditions in a narrower and wider environment. Its biggest lag behind the rest of the olive groves in the world occurred in 1945-90; then a UN project (UNDP / FAO) was carried out for the purpose of restoring olive growing in the country, within which olive groves were built near Poreč and Barbariga, but the results were not satisfactory. The faster development of olive growing began in the 1990s with stimulating measures of the state, restoration of old olive groves and planting of new ones. According to the estimates, the number of olive trees rose from 147,488 in 1988 to about 420,000 in 2003.



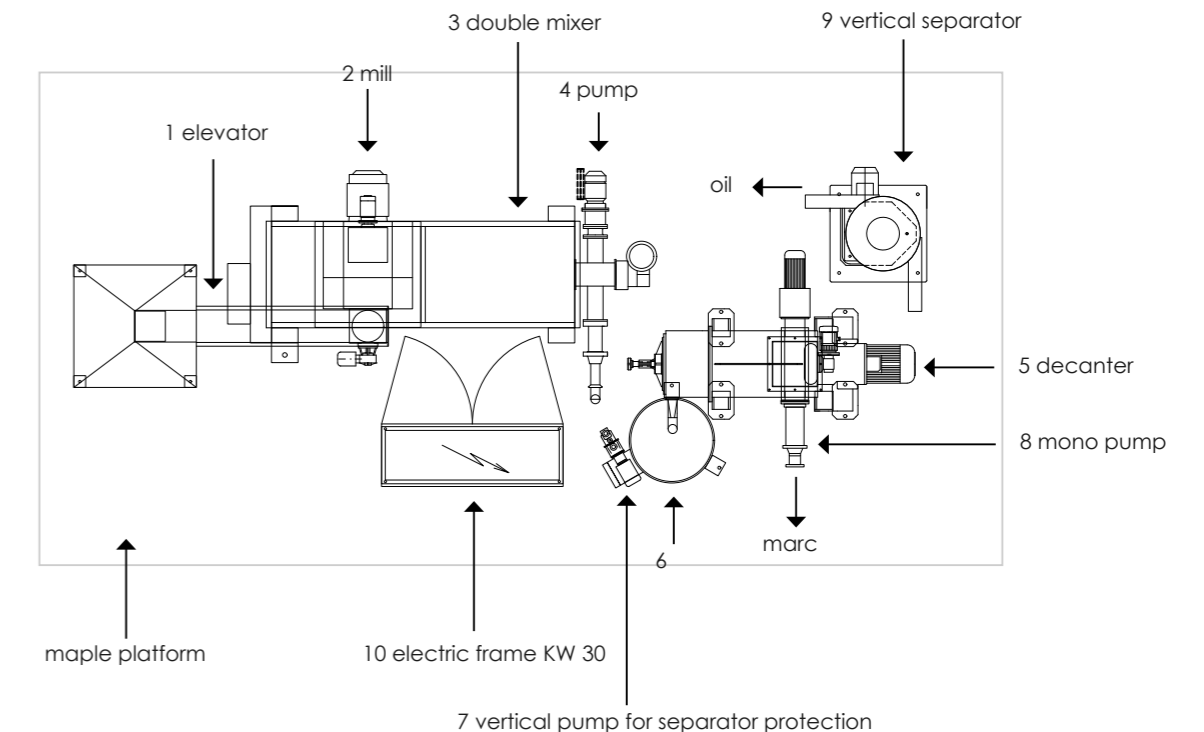
# Olive oil production

The oil refinery, as an object, consists of several sanitary cleaners for the preparation of olive oil for processing. First of all, this is the reception and cleaning of fruits by removing the leaves and the other, and rinse the water with water before processing. After these overtures, it starts with grinding, where the fruit is crushed and dropped in order to obtain a homogeneous mass, so called. olive dough, consisting of oil, water and pomace. Such a dough goes to stirring, where it separates the solid from the liquid part. The process is slow to produce free oil, which is separated by pressing or centrifuging, and then selective filtration. The oil is produced by so-called. cold processing and takes place in two phases. In the first phase, the healthy fruit of the olive dropples with the crunch, and then in the second stage by pressing the mixture of fried fruits, purify the pure olive oil. Average processing temperature is up to 27 °C, resulting in high quality olive oil. Oil affects almost the most same processing. Specifically, as the processing temperature is lower, it is also the olive oil richer with the smell and taste, and therefore much better quality.





















The tree that is most used for oil production in Istria is 'Istarska bjelica' which will be planted in the area.

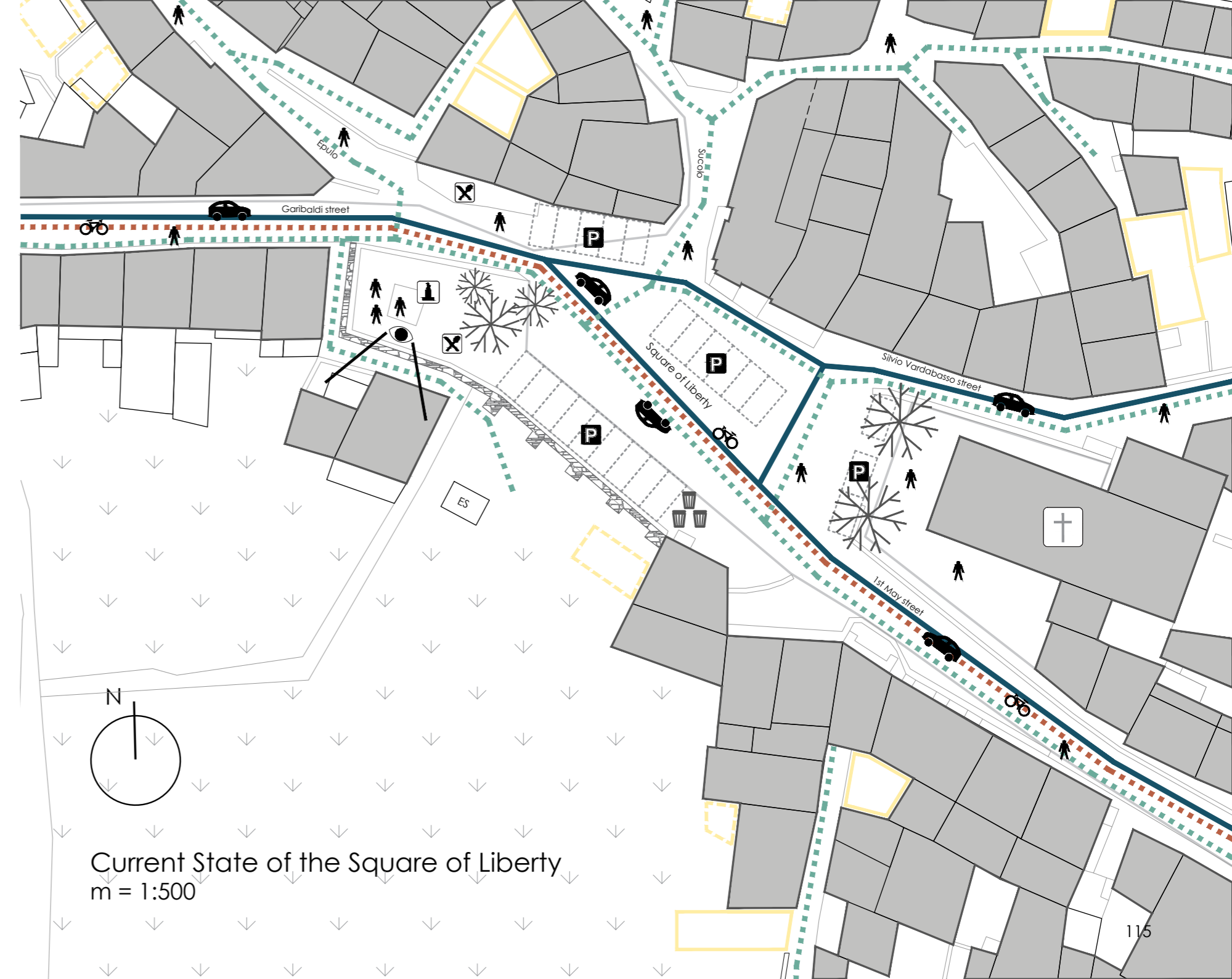
For this project we will use a small capacity oil manufacturing refinery which can be put in a space of 25 square meters.

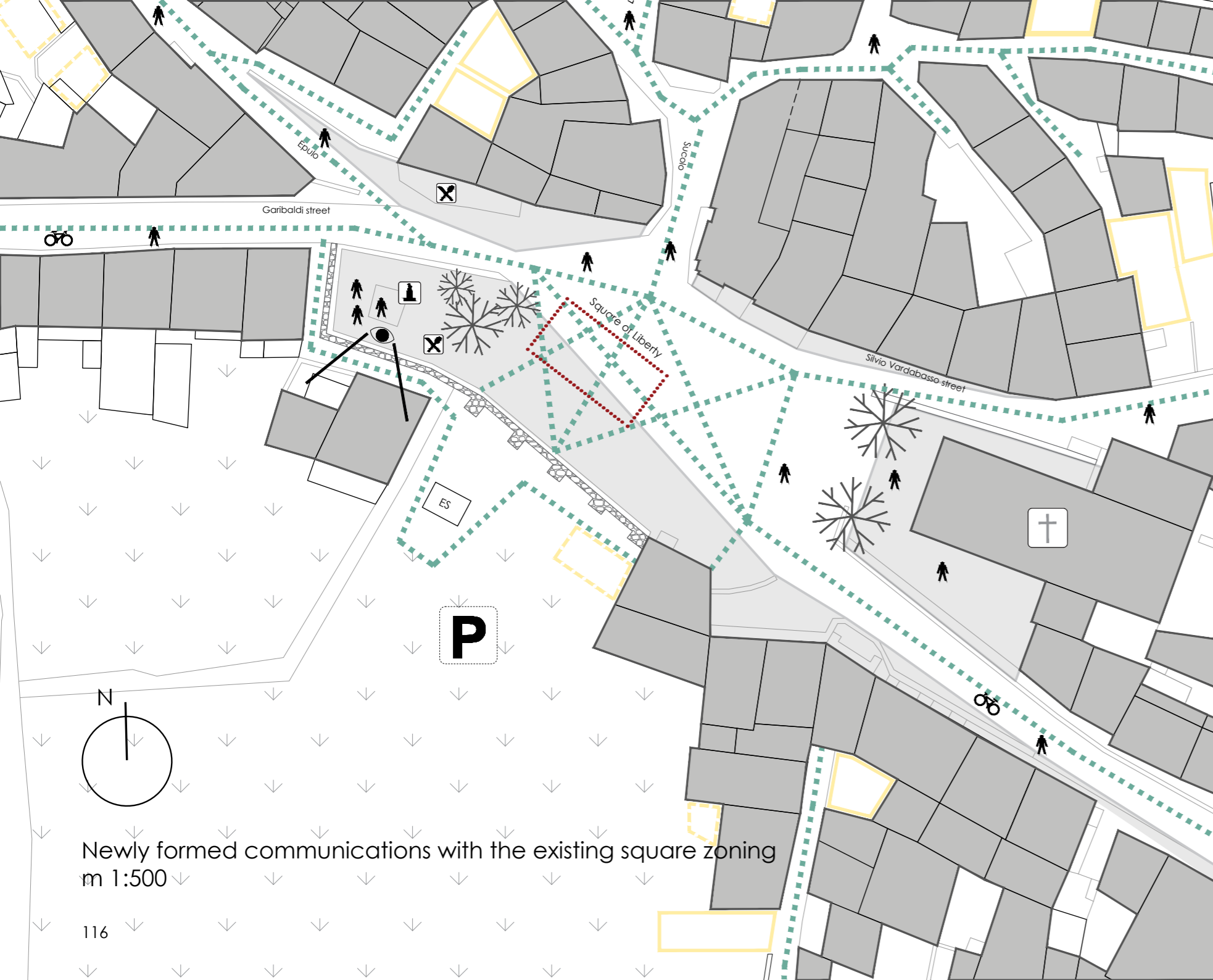
Scheme of an oil production unit  
m = 1:50



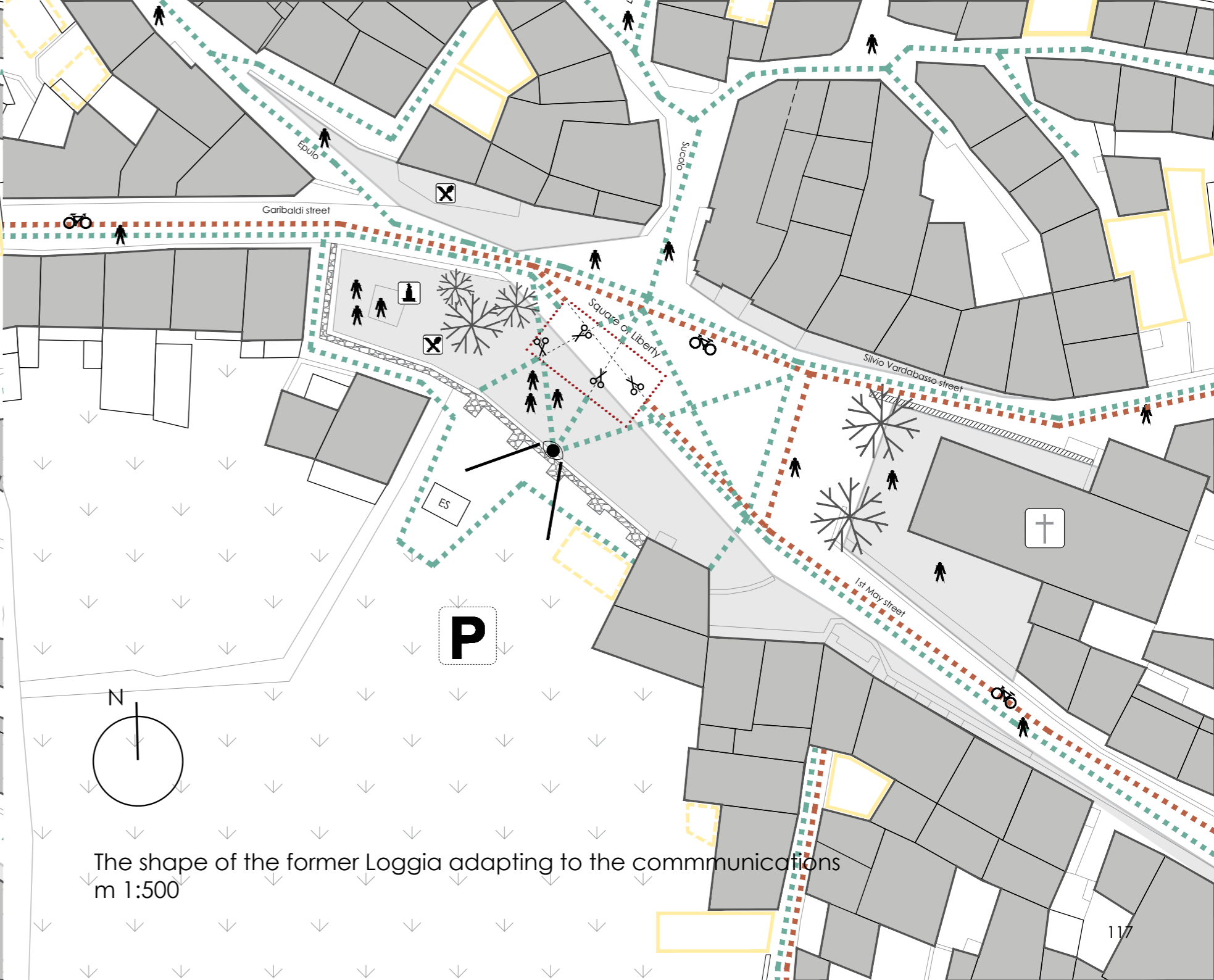
# Urbanistic interventions

-  ruin
-  ruin with no remains
-  position of the former City Loggia
-  car path
-  pedestrian path
-  bicycle path
-  parking space
-  parking space
-  monument
-  Church of Mercy
-  gathering point
-  garbage disposal (bins)
-  restaurant
-  viewpoint
-  zoning
-  buildings
-  greenery
-  underground waste containers (recycling)
-  bike point
-  bar terrace

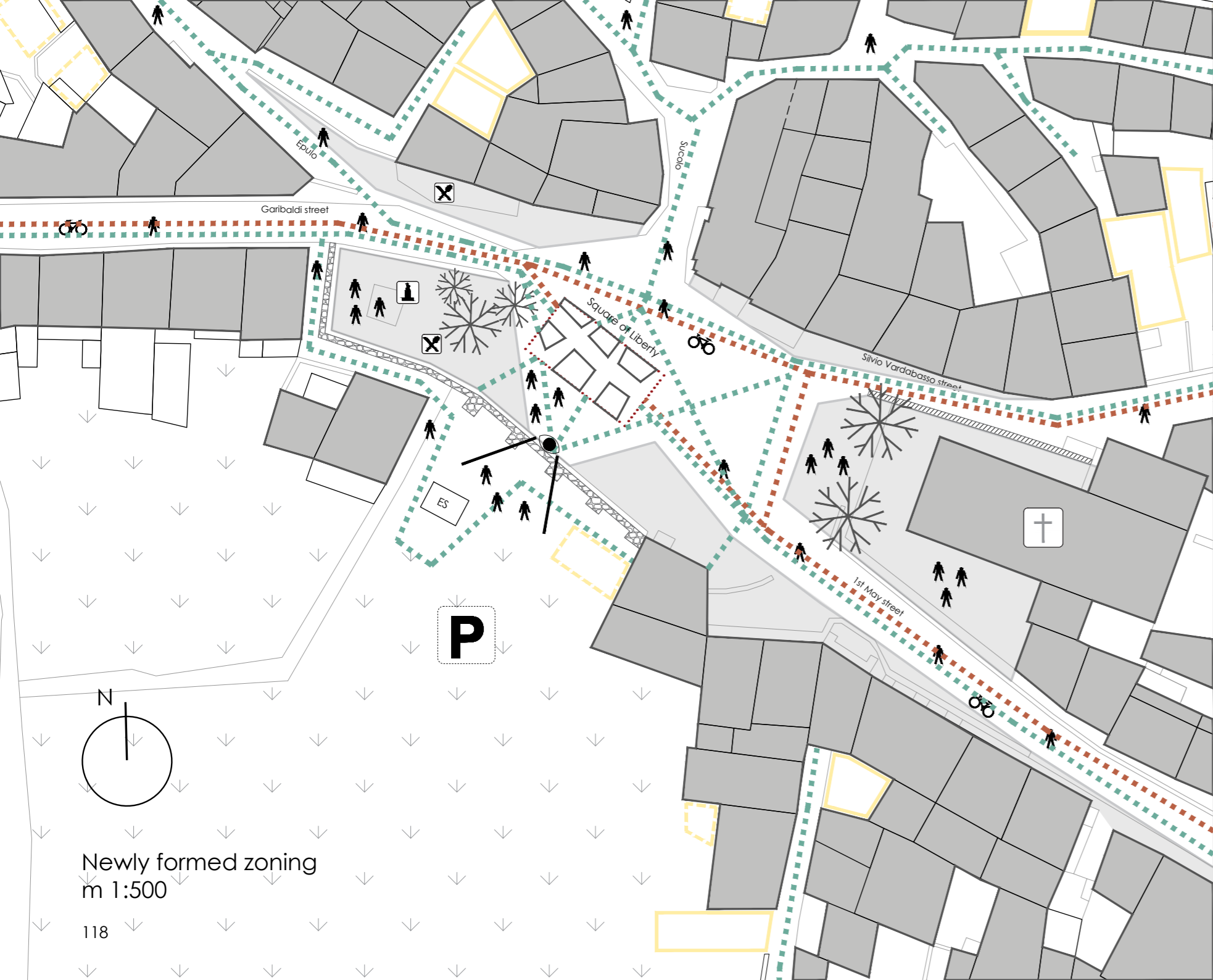




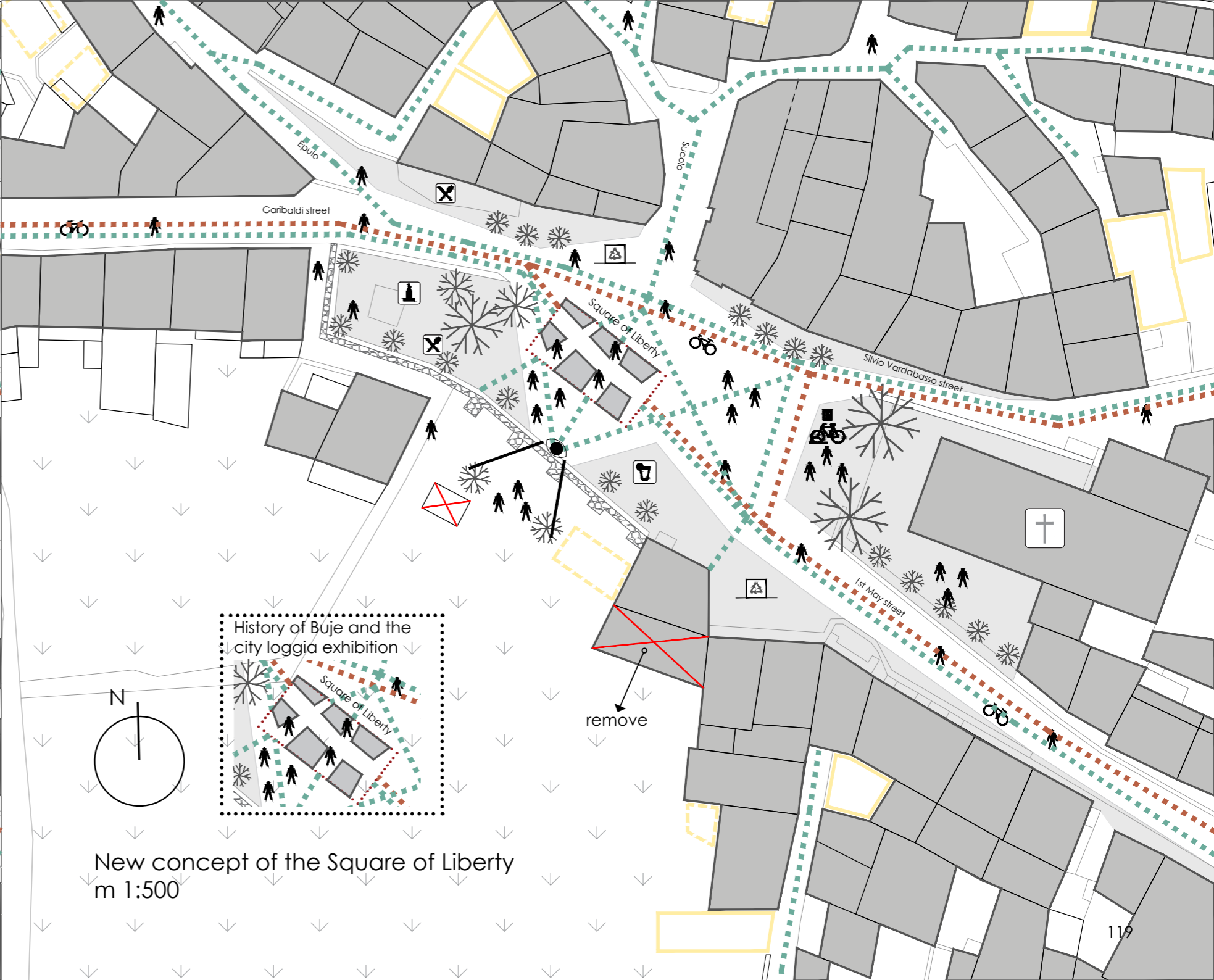
Newly formed communications with the existing square zoning  
m 1:500



The shape of the former Loggia adapting to the communications  
m 1:500



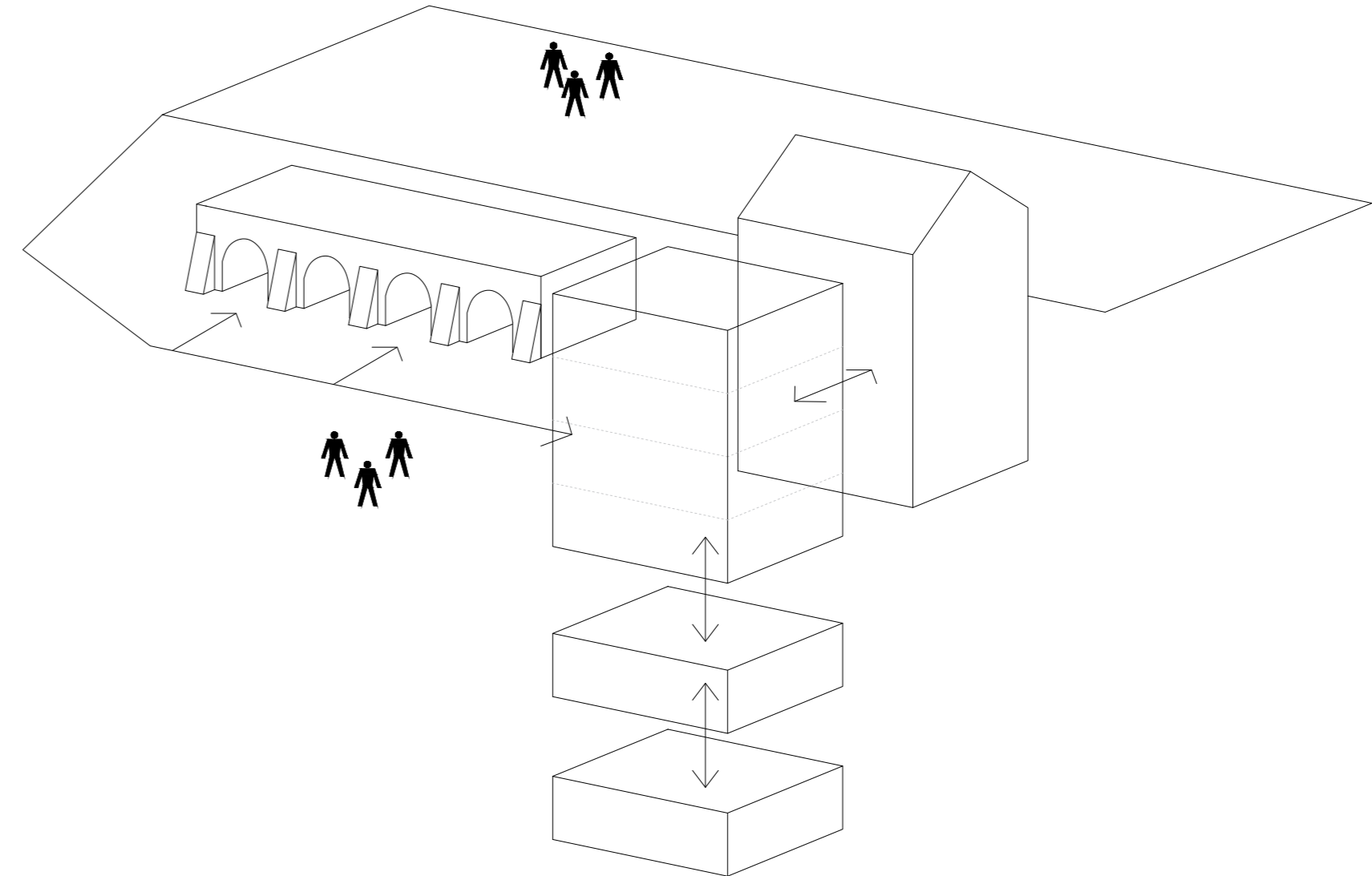
Newly formed zoning  
m 1:500



New concept of the Square of Liberty  
m 1:500

# Architectural intervention

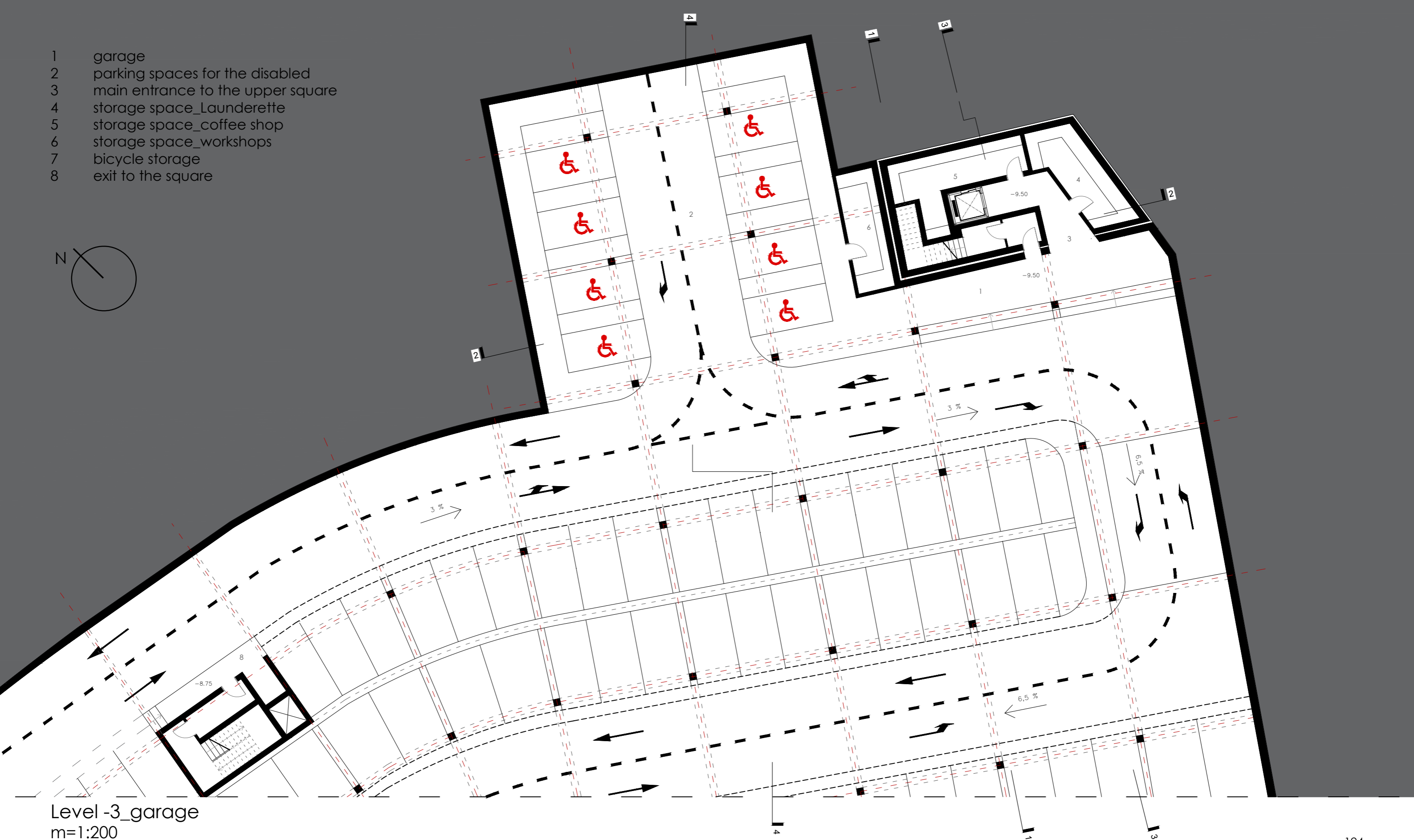
- after tearing down the annexed structure, a new structure will take its place
- in order to connect it to the garage, a new level between the garage and the Istrian House will ensue
- connection of the garage, Square of Liberty, Launderette and Istrian house
- the space will be functionally filled by zones that were displayed in the segment 'function'





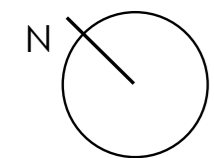
Project

- 1 garage
- 2 parking spaces for the disabled
- 3 main entrance to the upper square
- 4 storage space\_Laundrette
- 5 storage space\_coffee shop
- 6 storage space\_workshops
- 7 bicycle storage
- 8 exit to the square



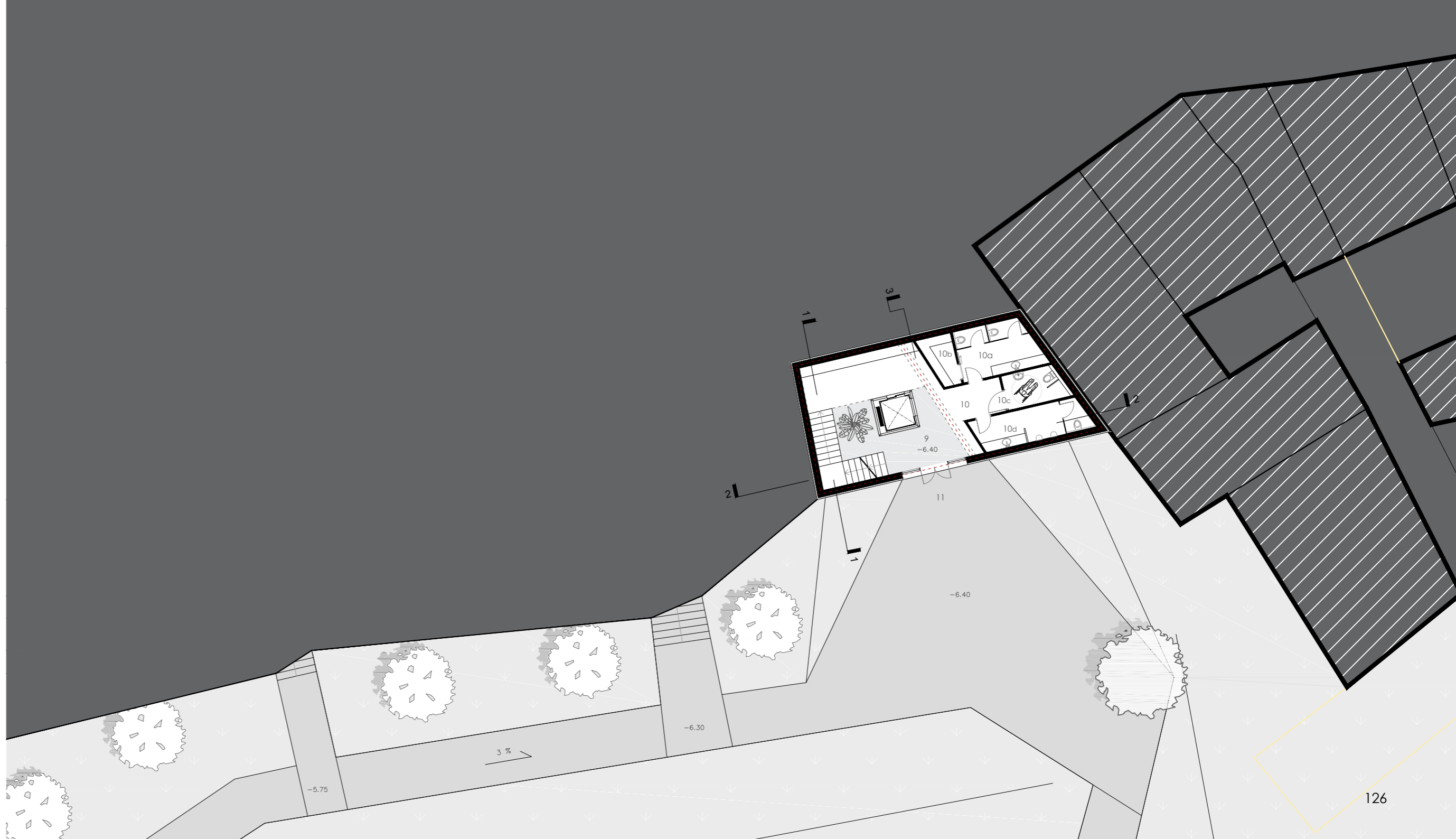
Level -3\_garage  
m=1:200

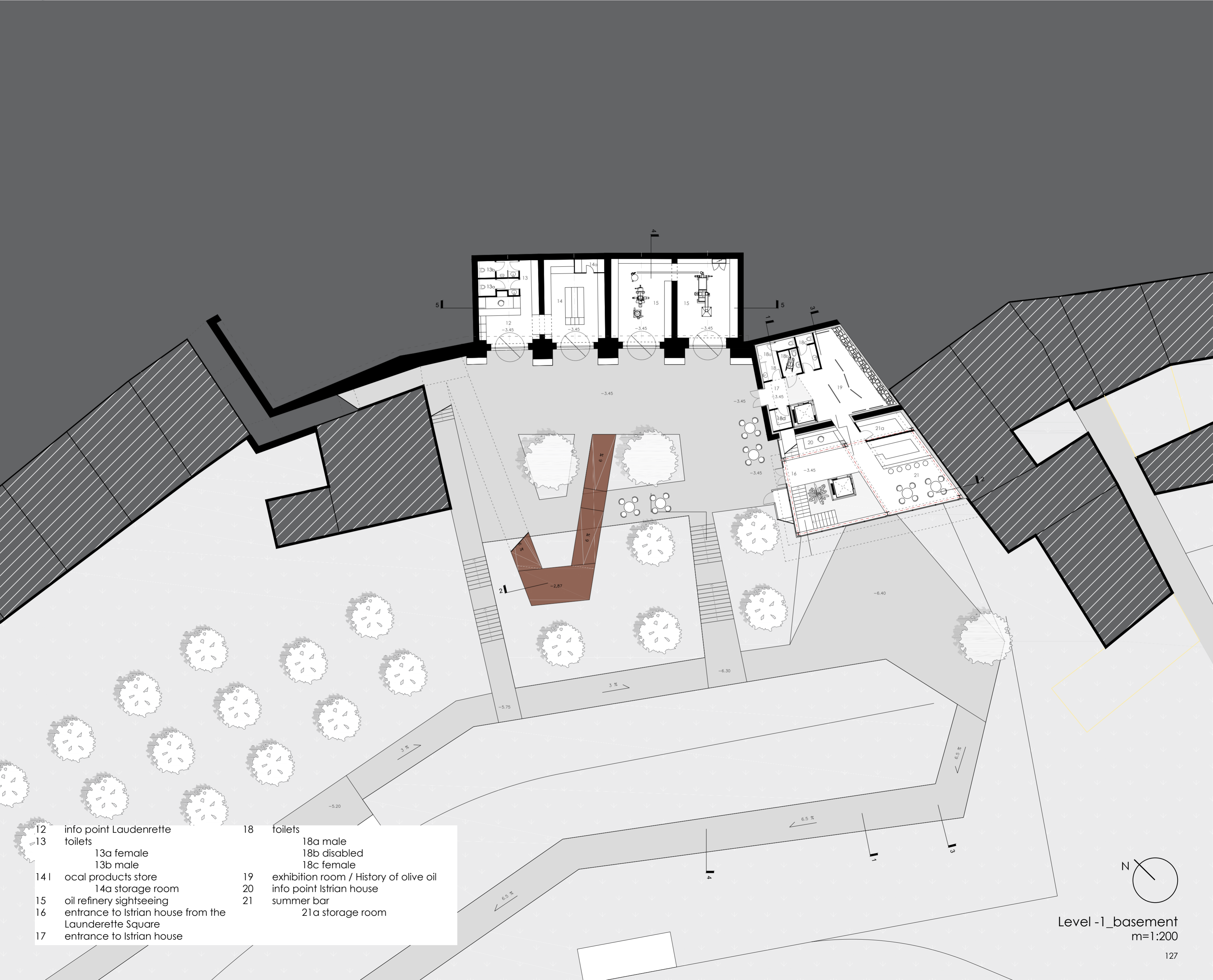
- 9 gallery
- 10 toilets
  - 10a female
  - 10b storage
  - 10c for the disabled
  - 10d male
- 11 exit to the Square of Launderette



Level -2  
m=1:200

125

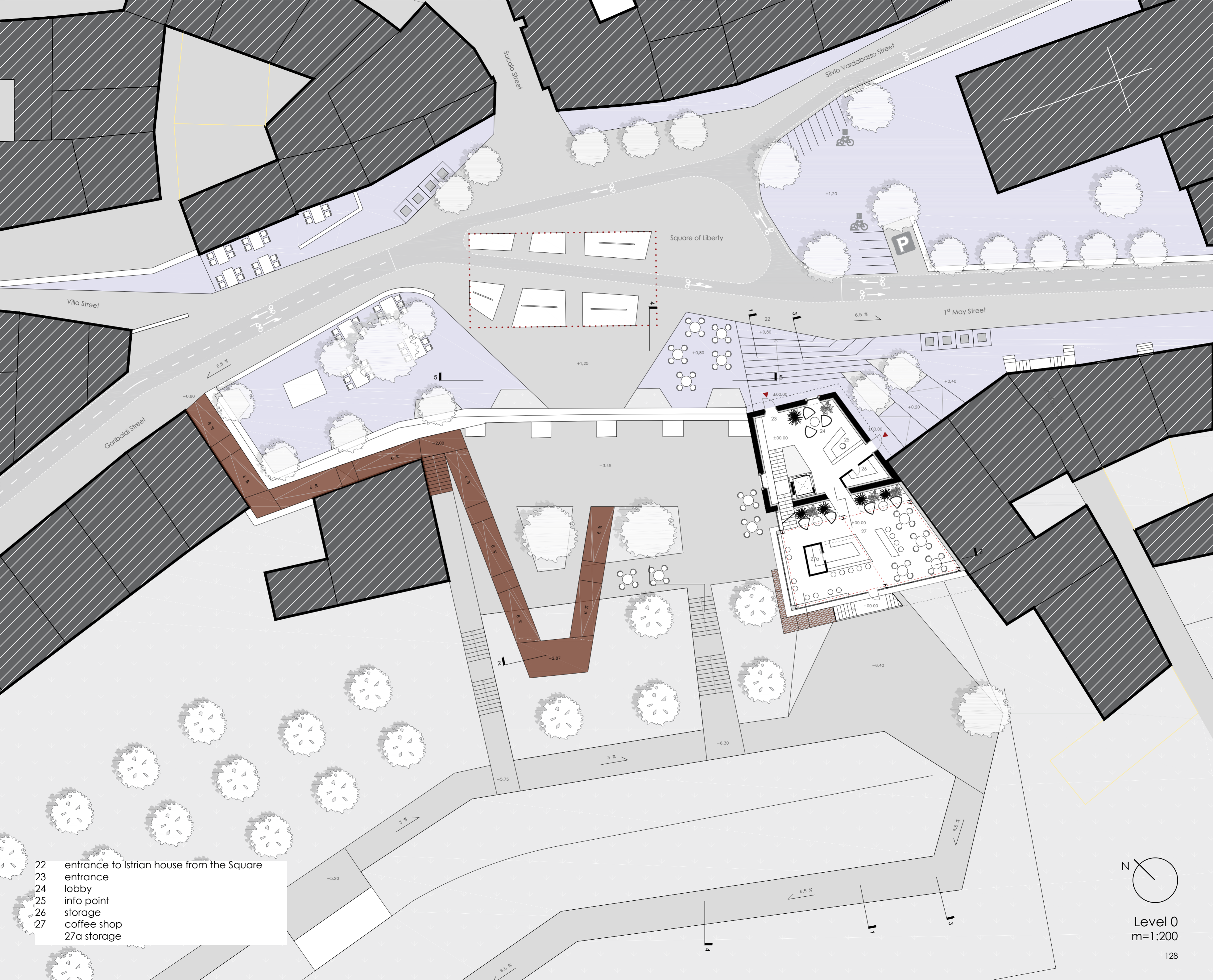




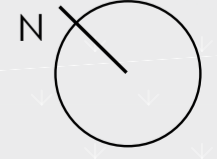
- |    |                                                         |     |                                        |
|----|---------------------------------------------------------|-----|----------------------------------------|
| 12 | info point Laudenrette                                  | 18  | toilets                                |
| 13 | toilets                                                 | 18a | male                                   |
|    | 13a female                                              | 18b | disabled                               |
|    | 13b male                                                | 18c | female                                 |
| 14 | ocal products store                                     | 19  | exhibition room / History of olive oil |
|    | 14a storage room                                        | 20  | info point Istrian house               |
| 15 | oil refinery sightseeing                                | 21  | summer bar                             |
| 16 | entrance to Istrian house from the<br>Lauderette Square | 21a | storage room                           |
| 17 | entrance to Istrian house                               |     |                                        |



Level -1\_basement  
m=1:200

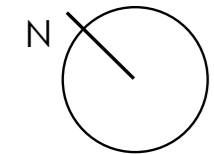


- 22 entrance to Istrian house from the Square
- 23 entrance
- 24 lobby
- 25 info point
- 26 storage
- 27 coffee shop
- 27a storage

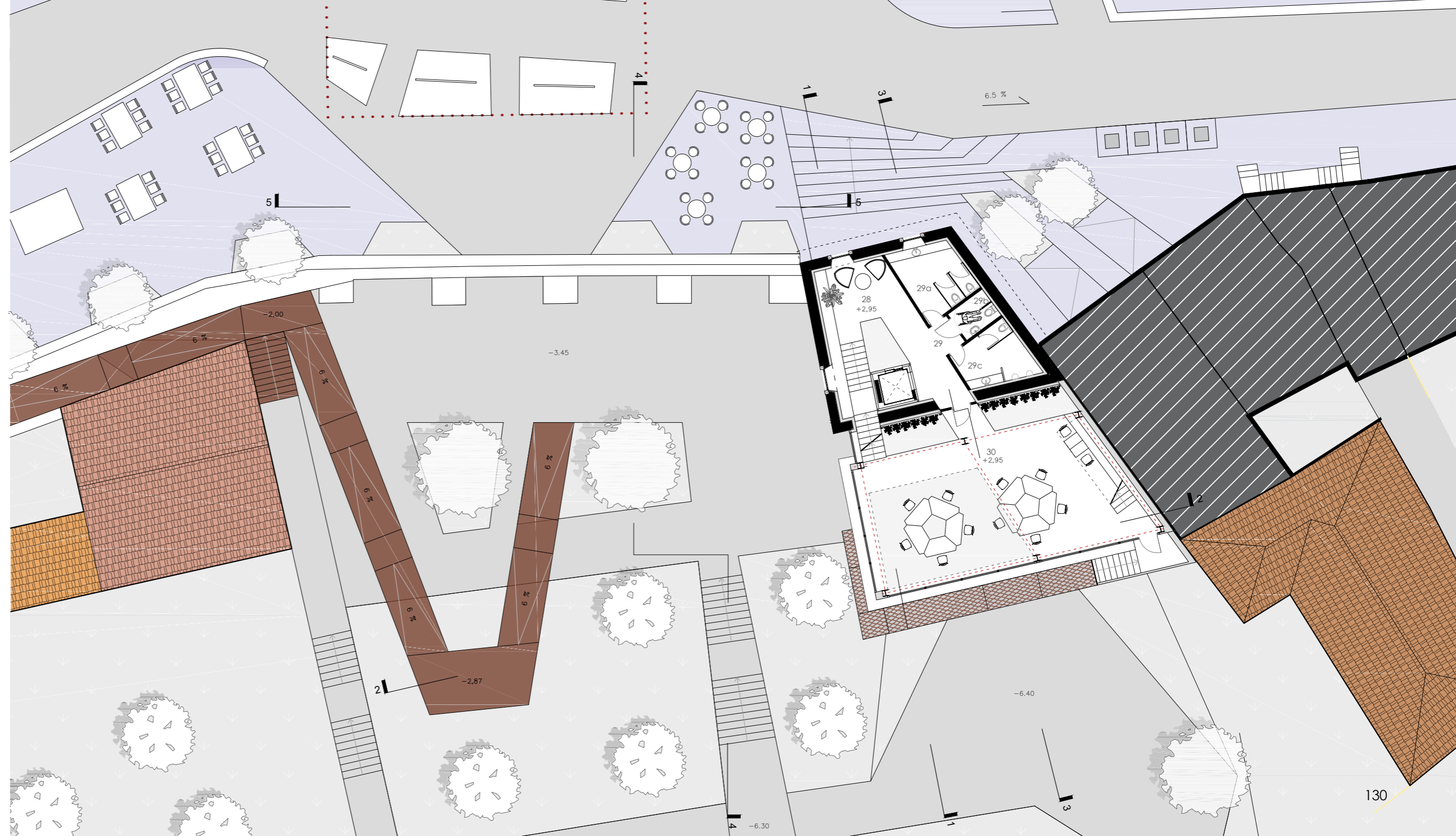


Level 0  
m=1:200

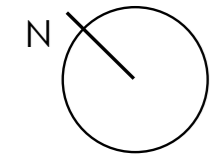
- 28 lobby
- 29 toilets
  - 29a female
  - 29b for the disabled
  - 29c male
- 30 workshop / multifunctional space



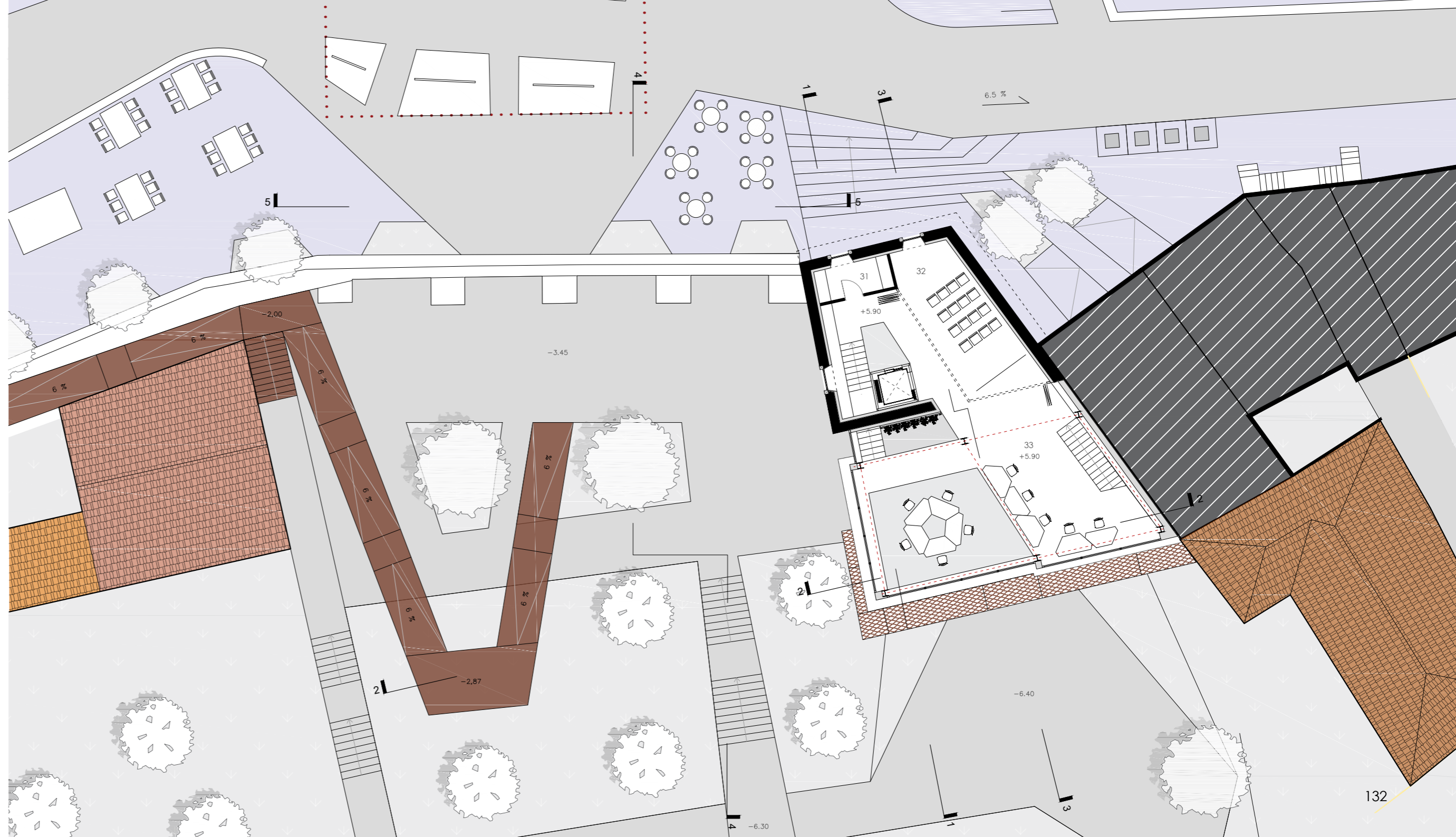
Level +1  
m=1:200



- 31 storage
- 32 lecture room / multifunctional space
- 33 gallery / workshop



Level +2  
m=1:200

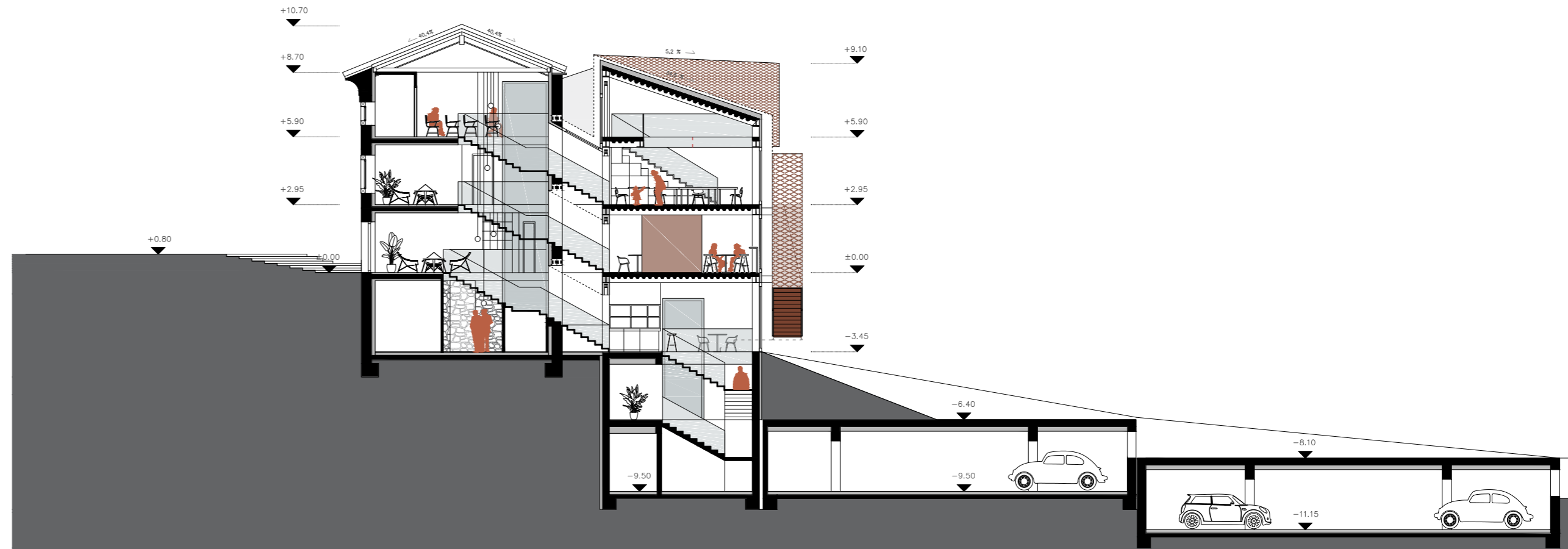


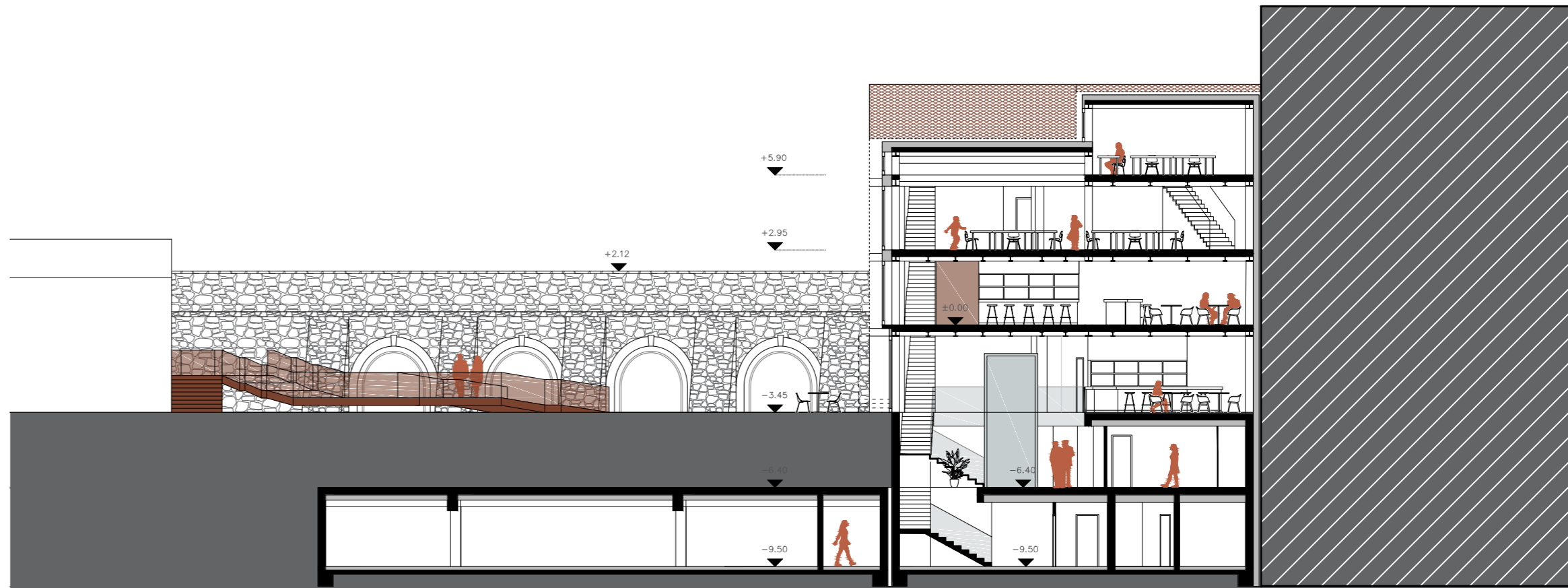


Roof plan  
m=1:200



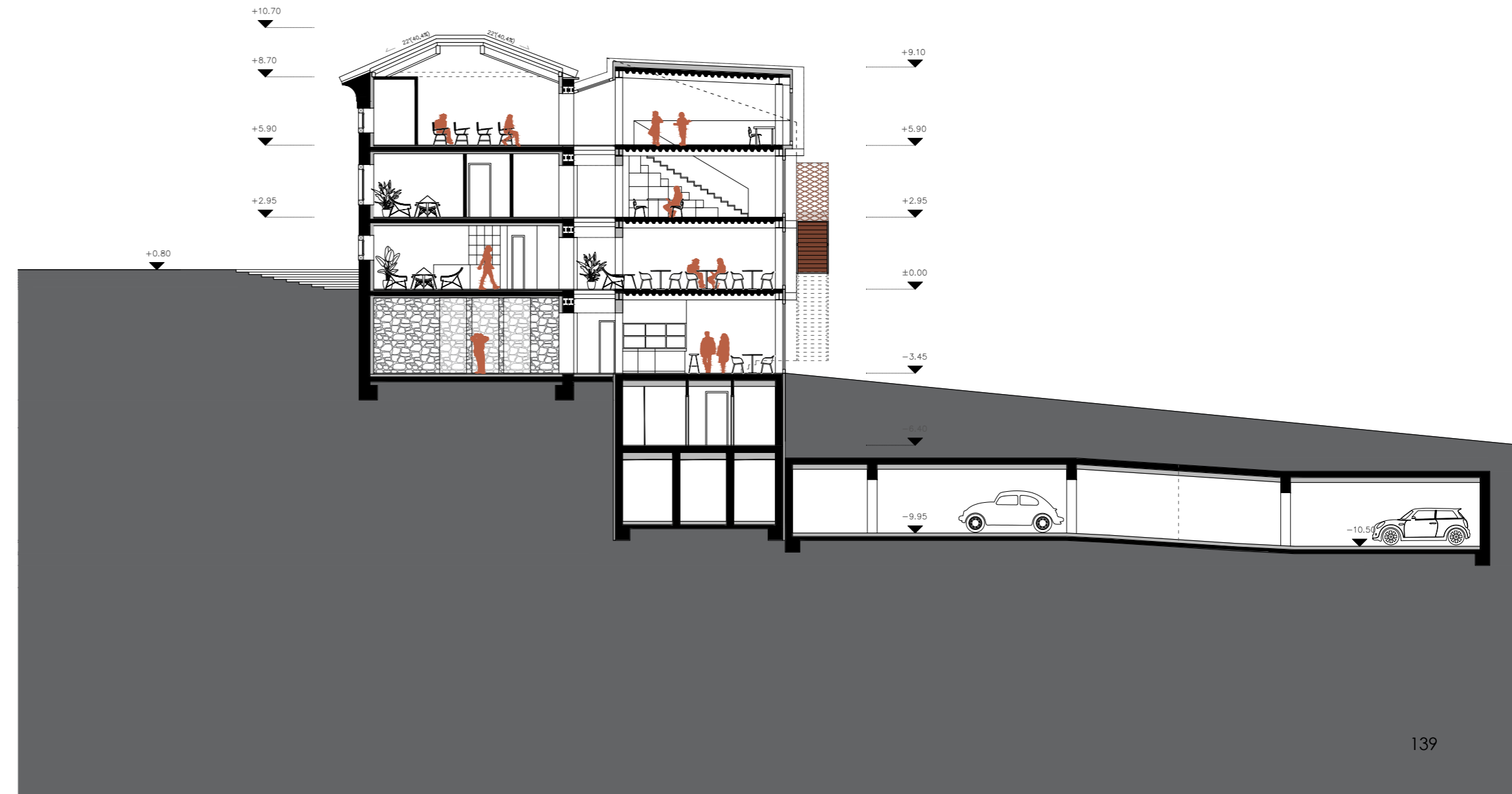
Section 1-1  
m = 1:200



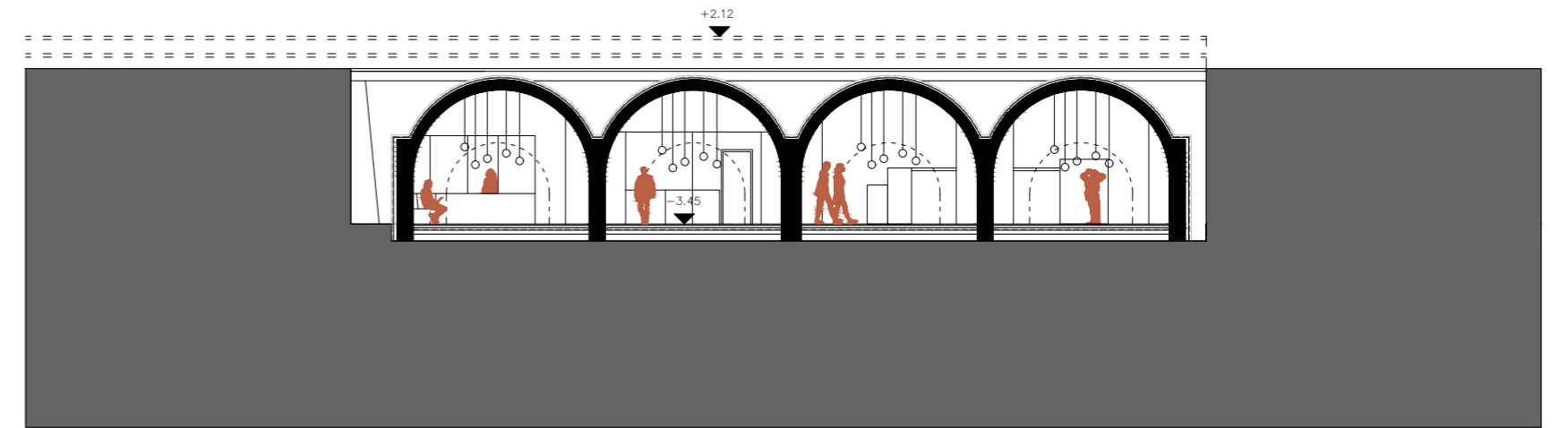


Section 2-2  
m = 1:200

Section 3-3  
m = 1:200



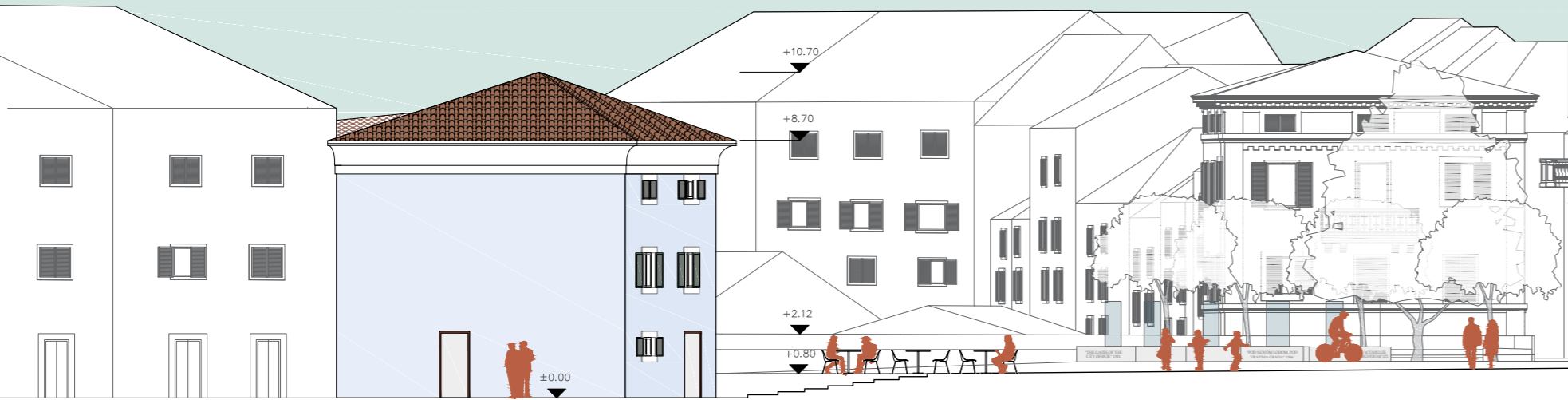
Section 5-5  
m = 1:200



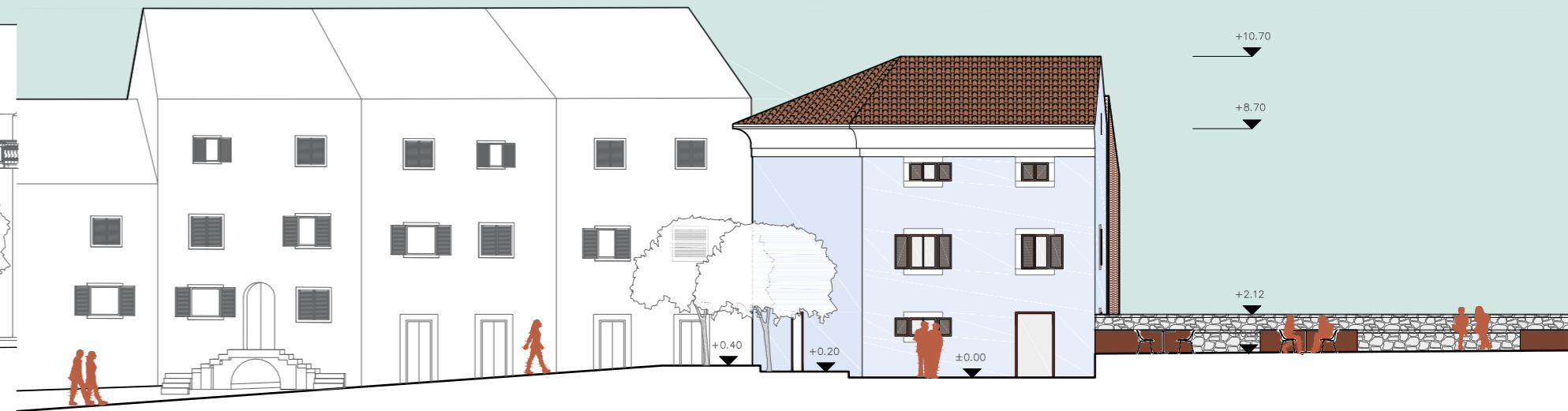
Southwest facade  
m = 1:200



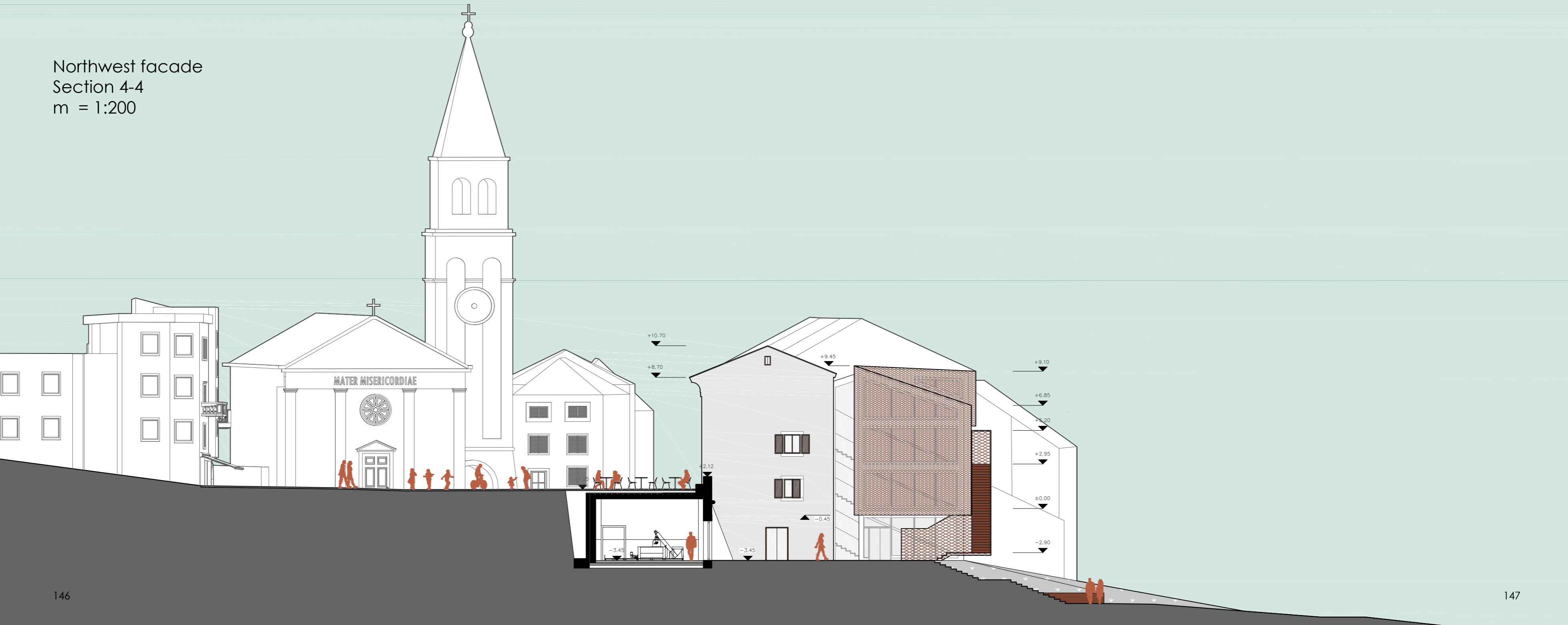
East facade  
m = 1:200

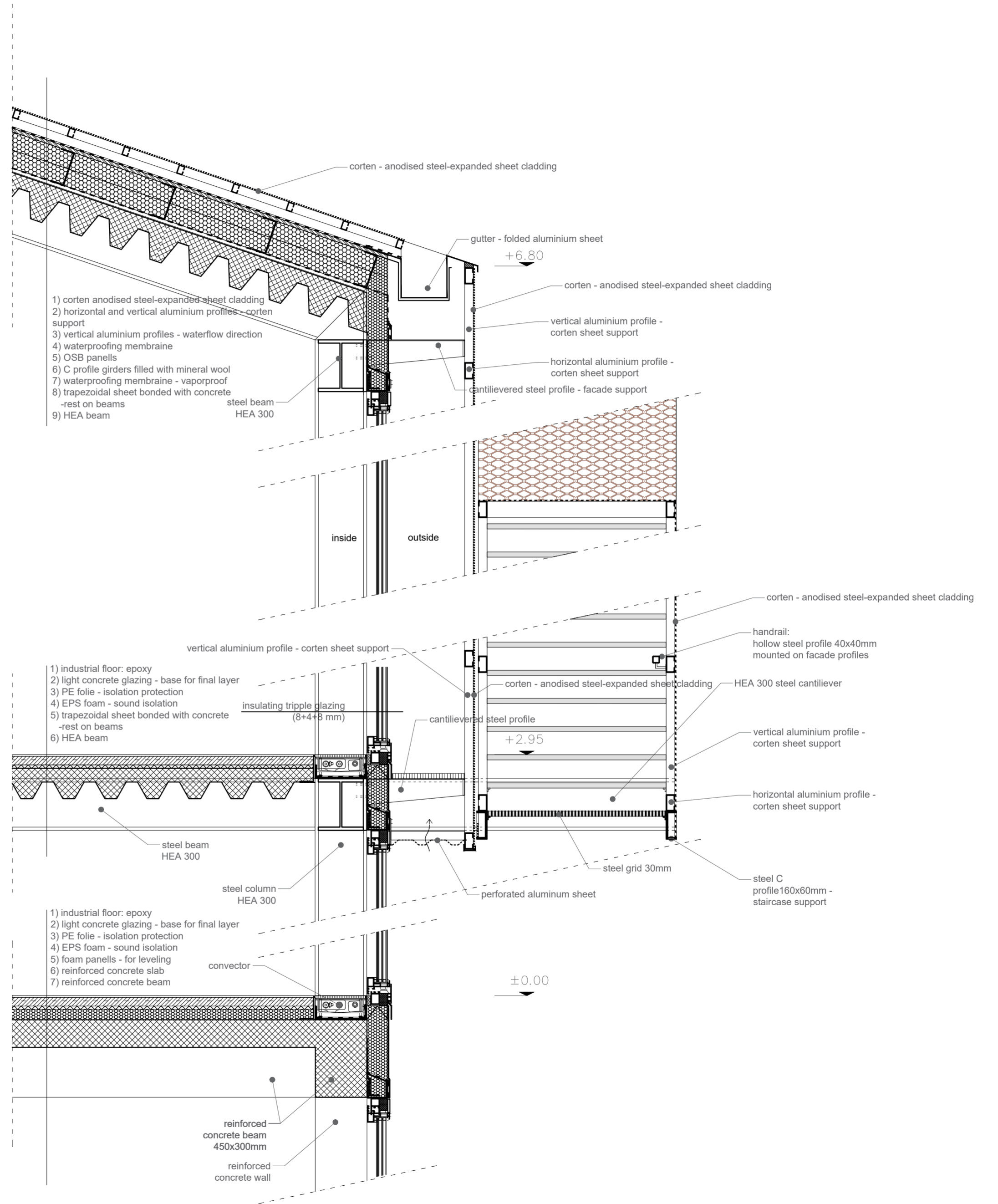
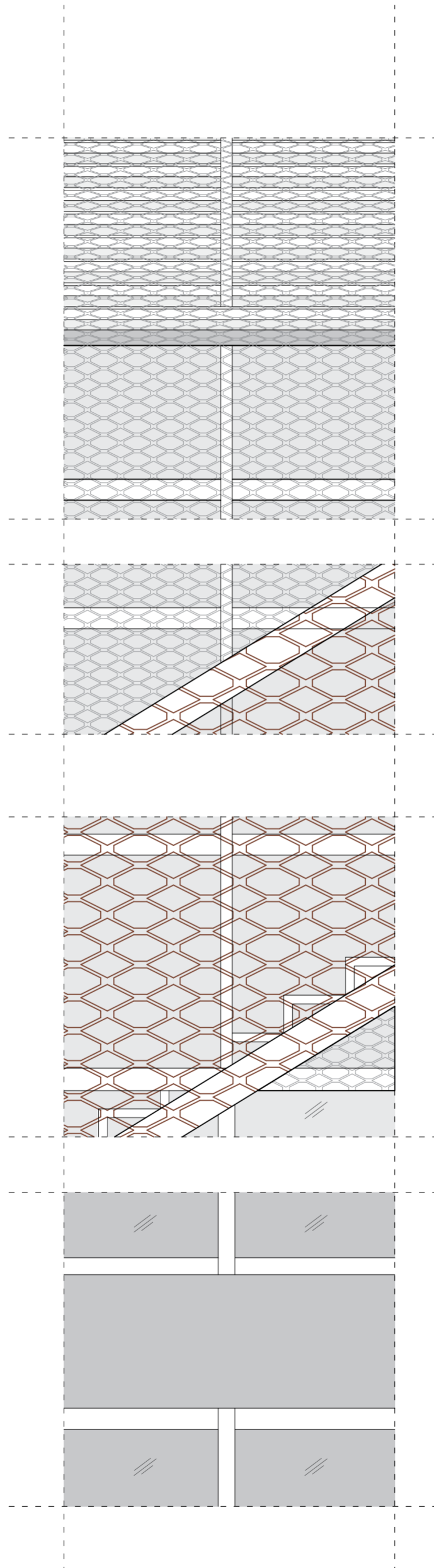


Northeast facade  
m = 1:200



Northwest facade  
Section 4-4  
m = 1:200

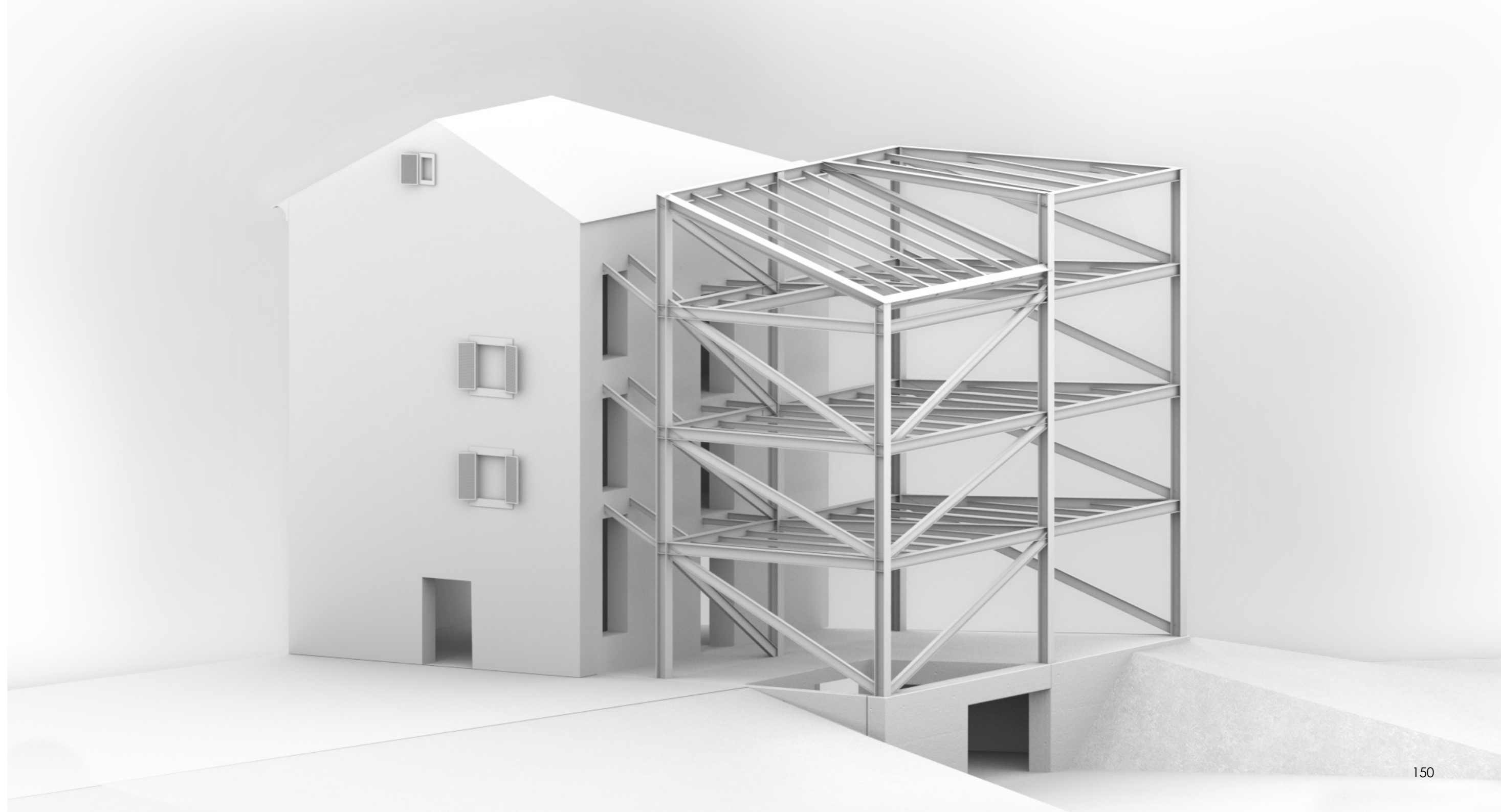




Facade detail  
m = 1:20



Construction scheme



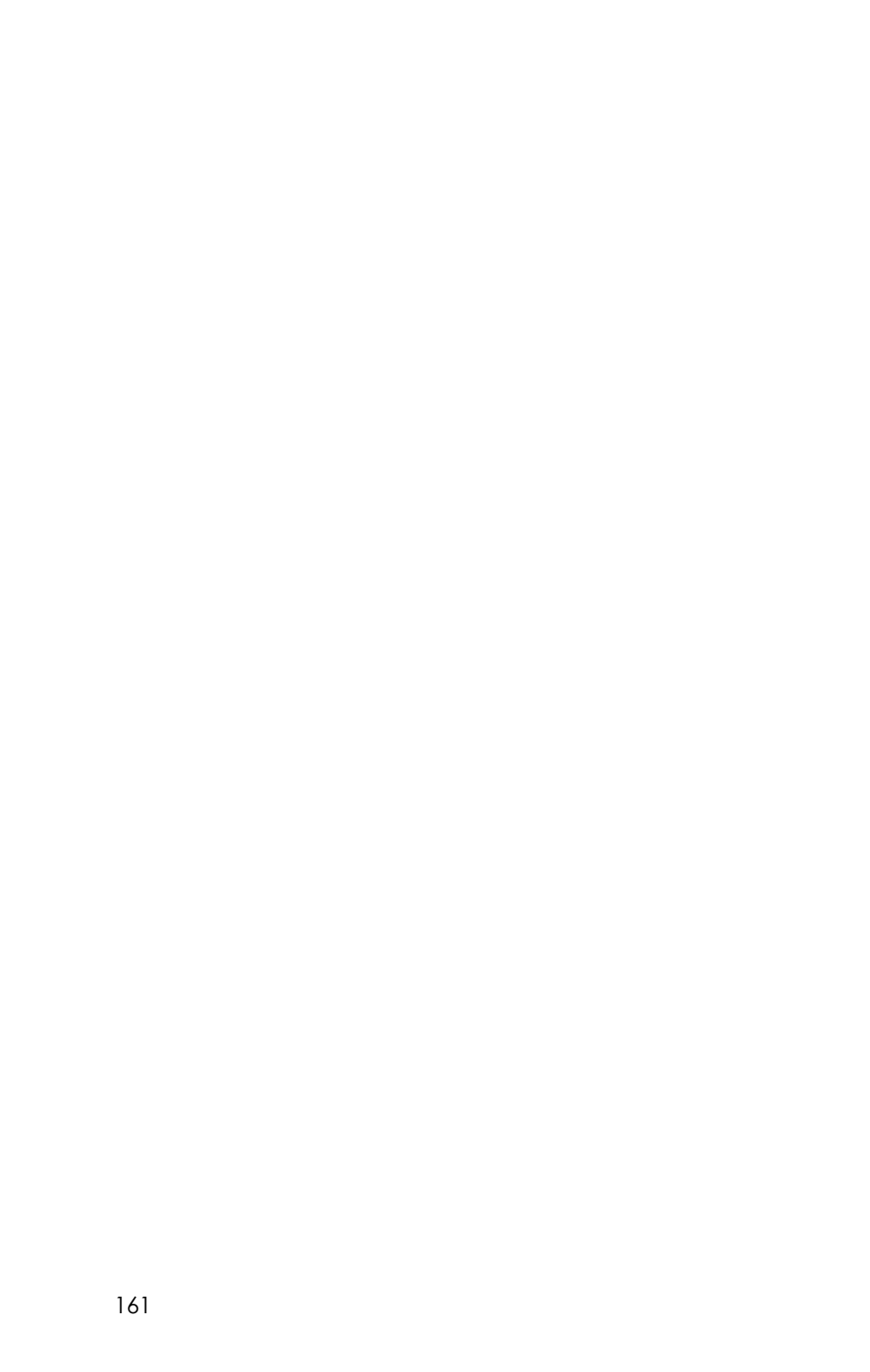












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Figure 32, 33 courtesy f the faculty of architecture in zagreb

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