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Department of Architecture

***Quare and bine.* Project of landscape requalification of the Municipality of Pescantina**

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Department of Architecture | Alma Mater Studiorum University of Bologna

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Abstract. Some of the critical issues facing contemporary cities are linked to urban sprawl, a phenomenon that is constantly increasing. This carries other problems, such as the depopulation of historical centres and the fragmentation of agricultural land, which is now more and more being abandoned. The Veneto region is a prime example of these phenomena, driven by massive property speculation. This has a strong impact on the landscape, which is becoming ever more homogeneous, undermining the recognisability of places: urbanised areas and agricultural areas are becoming a single, seamless mass. The project takes as its case study the Municipality of Pescantina, located in the province of Verona at the base of the Valpolicella hills and shaped by the bends of the Adige river. Pescantina faces the same issues as the rest of the Pianura Padana and Veneto region, which are addressed by strengthening the structure of the territory. In this way, an attempt is made to respond to these issues by making the parts that form the area under consideration recognisable again, in order to compose a unified image of the landscape.

Keywords: borders, territorial structure, sprawl, reuse of abandoned buildings, agriculture

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1. Introduction

Building speculation has increasingly blurred the distinction between city and countryside, homogenising territories into the so-called peri-urban landscapes, which are neither one nor the other. Despite the ongoing debate on sustainability and zero land consumption, accompanied by national and international programmes, urban sprawl shows no sign of stopping, expanding ever further into already saturated territories. This brings with it other issues, such as those related to the abandonment of historic centres and the fragmentation and abandonment of agricultural land. In Veneto and throughout the Pianura Padana, the signs of these phenomena are evident, due to never-ending construction speculation.

These issues are addressed here with reference to the Municipality of Pescantina, located in the upper plains of the Province of Verona at the foot of the Valpolicella hills and bordered by the Adige river. After an initial analysis, the critical issues of the municipality are identified. However, before moving on to the design strategies, a broader view of the territory is needed in order to determine the elements that characterise its structure, which becomes the basis for the project hypothesis. The approach is founded on the concept of a landscape composed of parts that are not fully recognisable due to the ongoing homogenisation of places.

Before proceeding with the intervention, a brief chapter is presented on the dynamics between urban sprawl and the abandonment of historical buildings and fields, showing how the phenomena are interconnected.

We then arrive at the project, which is grounded in strengthening the structure of the region extrapolated from the analysis. In this way, we seek to address the issues identified, working with the concepts of urban and agricultural rooms, i.e. the different parts that constitute the territory. These parts are distinct and recognisable, but at the same time they collaborate with each other from a functional point of view and generate a unitary landscape. The aim is to make the landscape readable again, in which the parts of the territory are distinguishable, while at the same time restoring a unified image, re-establishing the city-countryside dualism.

2. The landscape

2.1 Geographical framework



Figure 1. Geographical framework of the Municipality of Pescantina (provincial scale 1:50.000; regional scale 1:500.000).

The study and project area is the territory of the Municipality of Pescantina, located in the upper Veronese plain, about halfway between the city of Verona and Lake Garda. The municipality extends between the northern bank of a part of the Adige river, which borders its territory to the south, and the Via Nazionale del Brennero to the north, which runs along the Roman military road Claudia Augusta. Almost parallel to the latter runs the railway line, which divides the agricultural land in two. To the north lies the Valpolicella area, famous for its vineyards and wine, which continues into the hills at the foot of the mountains.

Pescantina extends for 9 km from Settimo to Santa Lucia in an east-west direction, and for 3 km from Ospedaletto to the Adige River in a north-south direction. It borders the Municipalities of San Pietro Incariano and Sant'Ambrogio di Valpolicella to the north. Ponton and Domegliara, districts of Sant'Ambrogio, define the western border, while Nassar (San Pietro Incariano) and Parona, a village in Verona, are located to the east. Finally, the Adige river separates Pescantina from the Municipalities of Pastrengo and Bussolengo.

There are six localities, from east to west: Settimo, Pescantina (the main town), Balconi, Arcè, Ospedaletto and Santa Lucia. The settlements that grew up along the Adige river – Settimo, Pescantina, Arcè and Santa Lucia – have a more extensive and complex historical centre, particularly Pescantina and Arcè, as they were home to river ports and water mills. Balconi and Ospedaletto, on the other hand, do not have a real centre, but are the result of urban expansion and building speculation along the Brennero road.

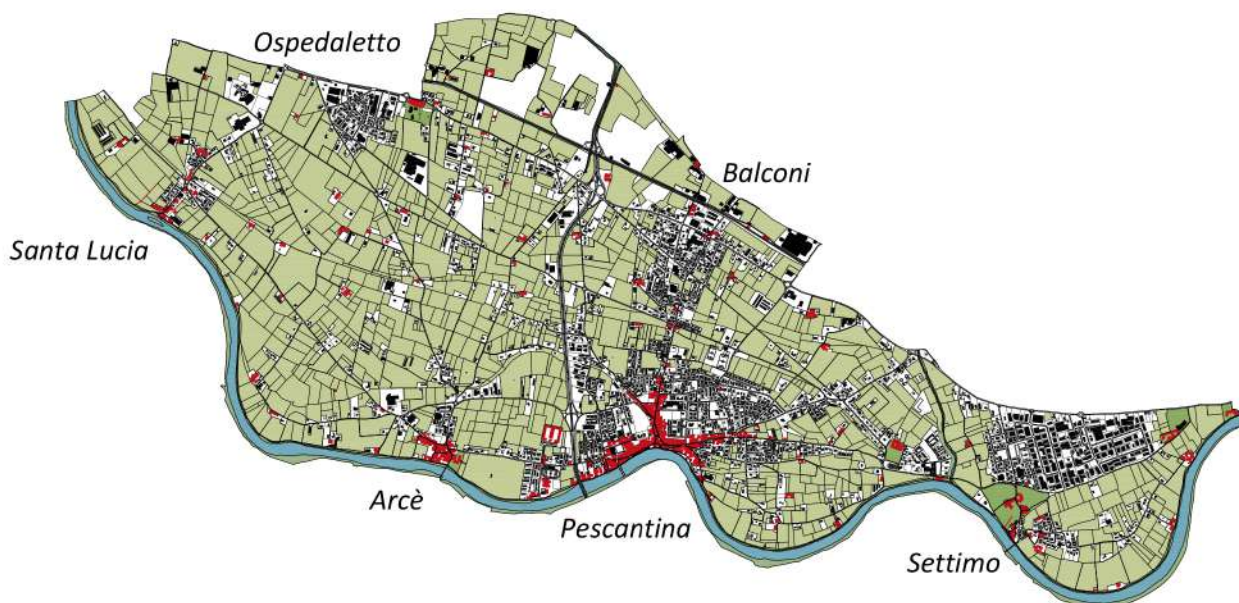


Figure 2. Plan of the Municipality of Pescantina (scale 1:60.000).



Figure 3. Pescantina seen from the bridge over the Adige river.

2.2 The fractions of the Municipality of Pescantina

SETTIMO

Although there are no real boundaries for the various fractions of the Municipality of Pescantina, we can frame Settimo in the pocket-shaped area that spans from the bend of the Adige River to the south to the Brennero road to the north, ending to the east with Nassar and to the west shortly after the Fumane *progno* (stream). What immediately catches the eye is the large industrial area which, if we imagine dividing the territory into three parts following the roads that run from west to east, occupies almost the entire upper third of the locality. Outside the Municipality of Pescantina, it expands with other warehouses occupying the strip between the Brennero road and the railway. To the south, it is bordered by Via Mirandola, a road that runs along one of the river terraces that characterise the territory, so that agricultural land and industries are located on two different levels.

Even though the village of Settimo is mentioned in documents dating back to 881, it doesn't have a developed historical centre. It's limited to a few buildings in the old port area on the river and the cluster formed by Villa Sparavieri, Villa Vascone-Bricci and Villa Bertoldi. Otherwise, the historic buildings consist of the church and a few neighbouring buildings near the port, and a number of courtyards and rural buildings scattered throughout the countryside. The village has expanded mainly along Via Bertoldi in a south-north direction, on the land adjacent to the church and in the area to the left of the Fumane stream. The countryside, as in this entire part of the Veronese territory, is also subject to constant allotments, which continue to eat away at agricultural land. The overall image that emerges is that of a town with undefined boundaries, in constant expansion and gradually absorbing the countryside, without any underlying plan.

PESCANTINA

Pescantina is the town with the largest and most articulated historical centre. It is mentioned in documents dating back to 1127, later than other villages, but it grew thanks to its river port, becoming the hub of trade on the Adige in the 16th century. The river shapes the town, which is made up of five branches, two of which run alongside the river and three along the roads, converging at the top of the bend. Linked to river traffic is the towpath, which runs along its entire course. Originally used to transport boats upstream, it is now a pedestrian and cycle path.

The urban expansion is remarkable, occupying the space between the arms of the historic centre and branching out along the road network. The south-north expansion is significant, following Via Roma and exploding at the intersection with Via Moceniga, forming a shapeless urbanisation in the fraction of Balconi. In addition to the lack of definition of what is or is not urban and the agricultural fragmentation mentioned above, the large number of abandoned fields is prominent, which are increasingly providing land for new buildings. The Tangenziale Ovest (motorway) represents a sort of break, to the left of which the building expansion, although present, is less intense, consisting mainly of scattered buildings.

Finally, there are some river terraces, which can be seen from the layout of the buildings and fields. The first, lower down, creates a sort of inferior boundary for the buildings in Via Tre Santi, connecting the vertices of the bends of the Adige at Pescantina and the Fumane *progno*. The second, which also has one end near the stream, surrounds the upper part of the village of Pescantina and then continues eastwards beyond Santa Lucia to Ponton. The last one, on the other hand, starting from the bend on which the village stands, continues along Via Colli and beyond the motorway, touching Arcè and finally approaching the river until it reaches the meeting point.

BALCONI

As already mentioned, the locality of Balconi was established as an extension of Pescantina, driven by property speculation, without continuity with the historical fabric, which is, in fact, almost non-existent. It is limited to a few courtyards and rural buildings, which were subsequently incorporated into the new development. The village stretches along Via Roma and the Brennero road, concentrated between the latter and Via Moceniga. The expansion was also favoured by its proximity to the Tangenziale Ovest and the railway.

In the already fragmented agricultural fabric between Balconi and Ospedaletto, there are large quarries and the controversial Ca' Filissine landfill, which is no longer operational and is undergoing remediation due to the percolation of pollutants into the aquifer.

ARCÈ

Arcè, a village just west of Pescantina, is the oldest part of the municipality, dating back to 846. The centre occupies an area extending from the banks of the Adige to Corso San Lorenzo and Via San Michele. Urban expansion has formed a more compact centre near the first section of Via Belvedere, which then disperses into the countryside along the main roads. A peculiar feature is the large plot of land between the centre of Arcè and Pescantina, which interrupts the buildings along the lower edge of Corso San Lorenzo, while the upper edge is occupied by a linear series of plots connecting the two villages.

The agricultural area is less fragmented than elsewhere, but it is clear that it is increasingly under threat from building speculation. Finally, the agricultural texture shows the differences in height of the levels of the countryside described above, with the upper part having a more linear pattern and the lower part forming a curve that bends at Arcè and ends at the Adige river.

OSPEDALETTO

The locality of Ospedaletto is a recent urban development resulting from speculation, encouraged, like Balconi, by the presence of the Brennero road and railway. The historical centre is nearly absent, consisting only of Villa Quaranta and its appendices, and rural buildings scattered throughout the countryside. The Brennero road, which becomes Via Ospedaletto at the junction, encourages the construction of buildings that are filling the space between the motorway and the village, creating linear clusters of buildings that are expanding and occupying what remains of the increasingly abandoned agricultural fields.

SANTA LUCIA

The core of Santa Lucia has ancient origins, dating back to the 9th century. The historic buildings consist of a small cluster on the banks of the Adige River, a few buildings along Via Valpolicella and agricultural complexes. The village has seen limited expansion, mainly along Via Valpolicella. Here, the agricultural fabric is still quite strong and recognisable, less subject to building speculation, although there are some examples, such as in the side street off Via Valpolicella.

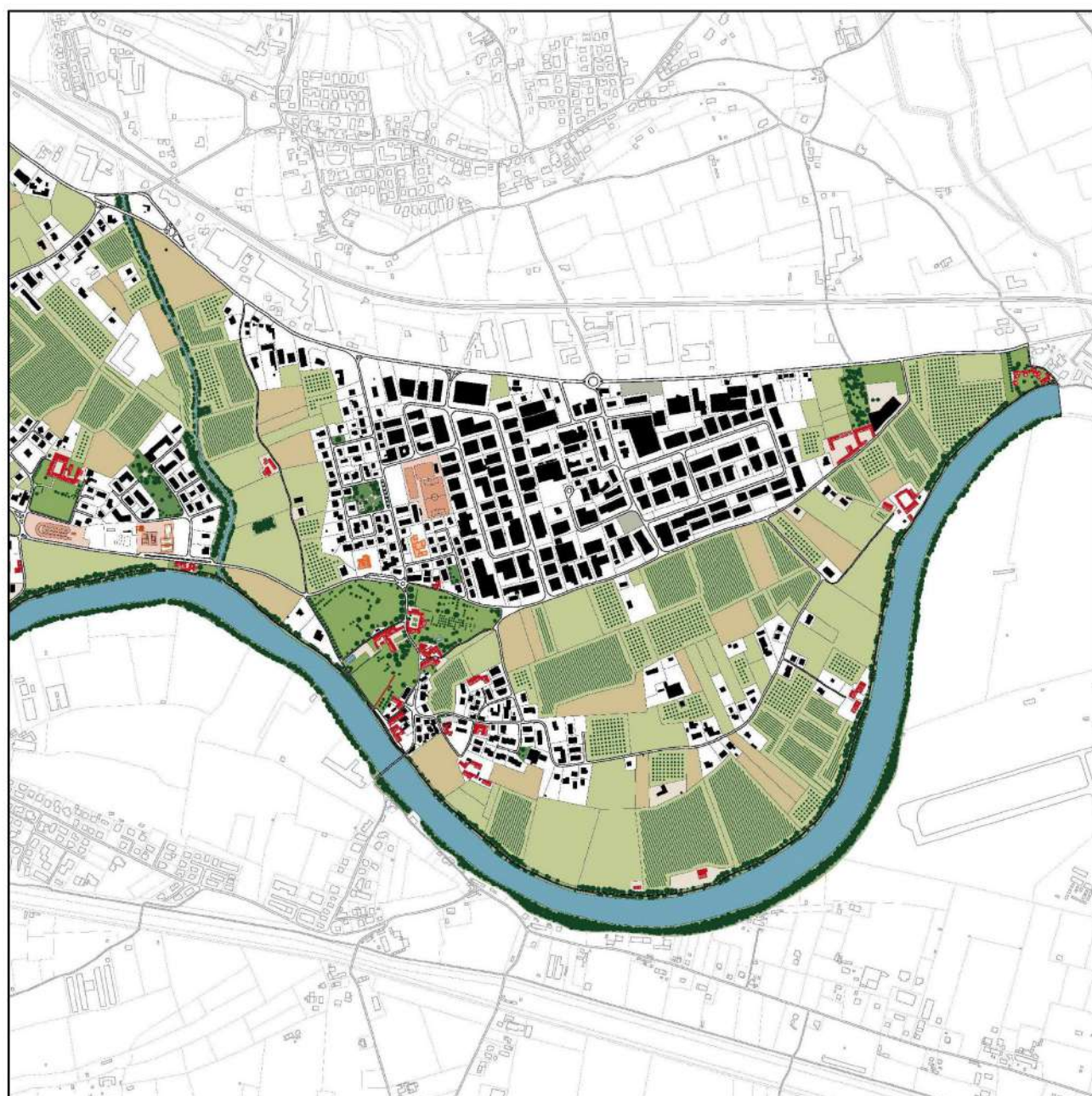
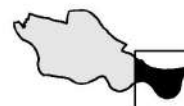


Figure 4. Plan of the Pescantina territory framed on the locality of Settimo (scale 1:17.650; original scale 1:5.000).

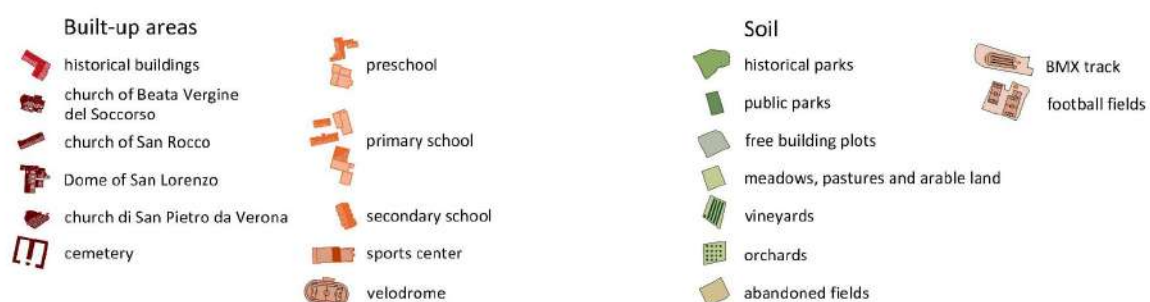
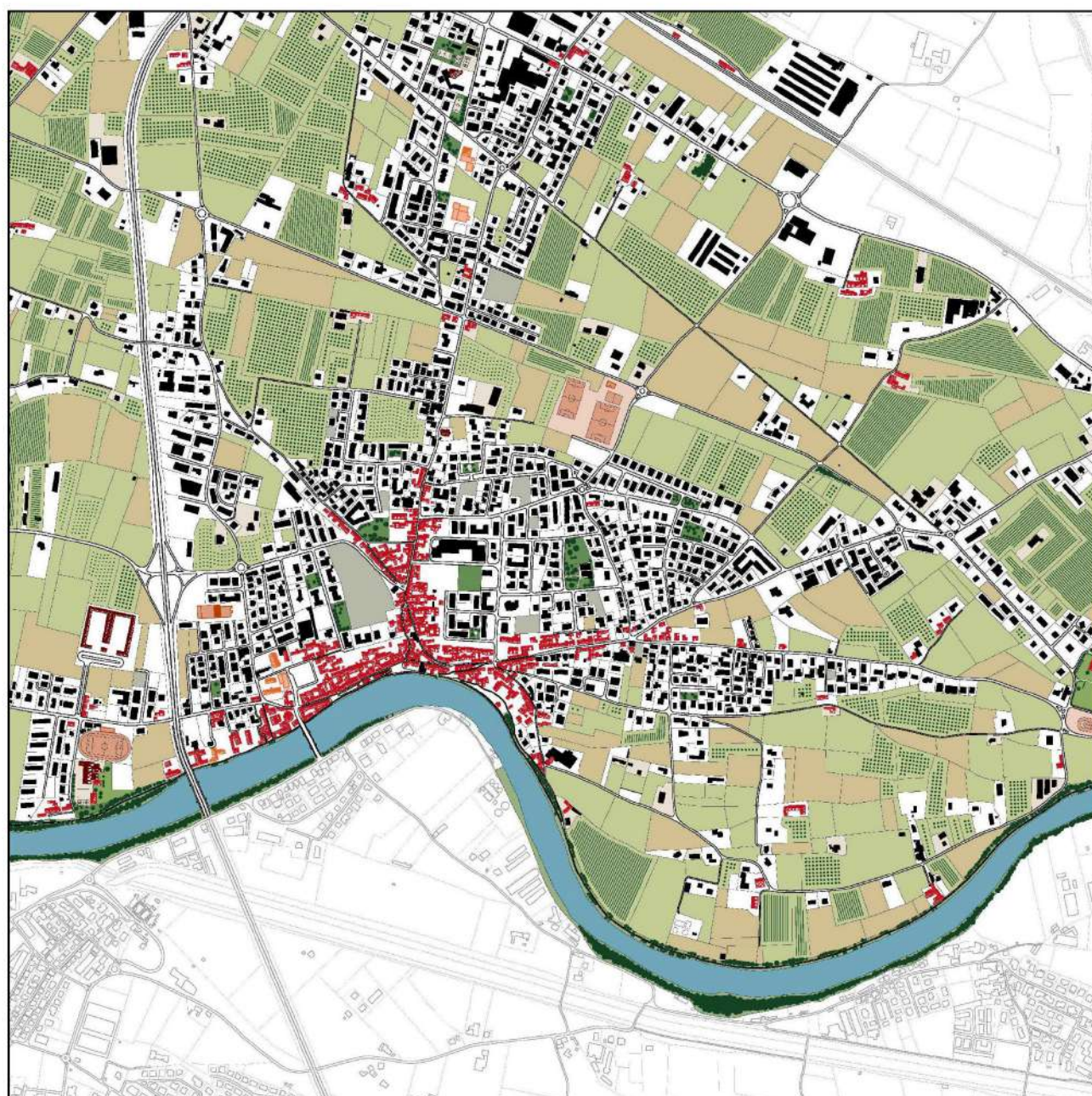
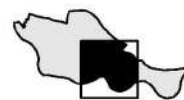
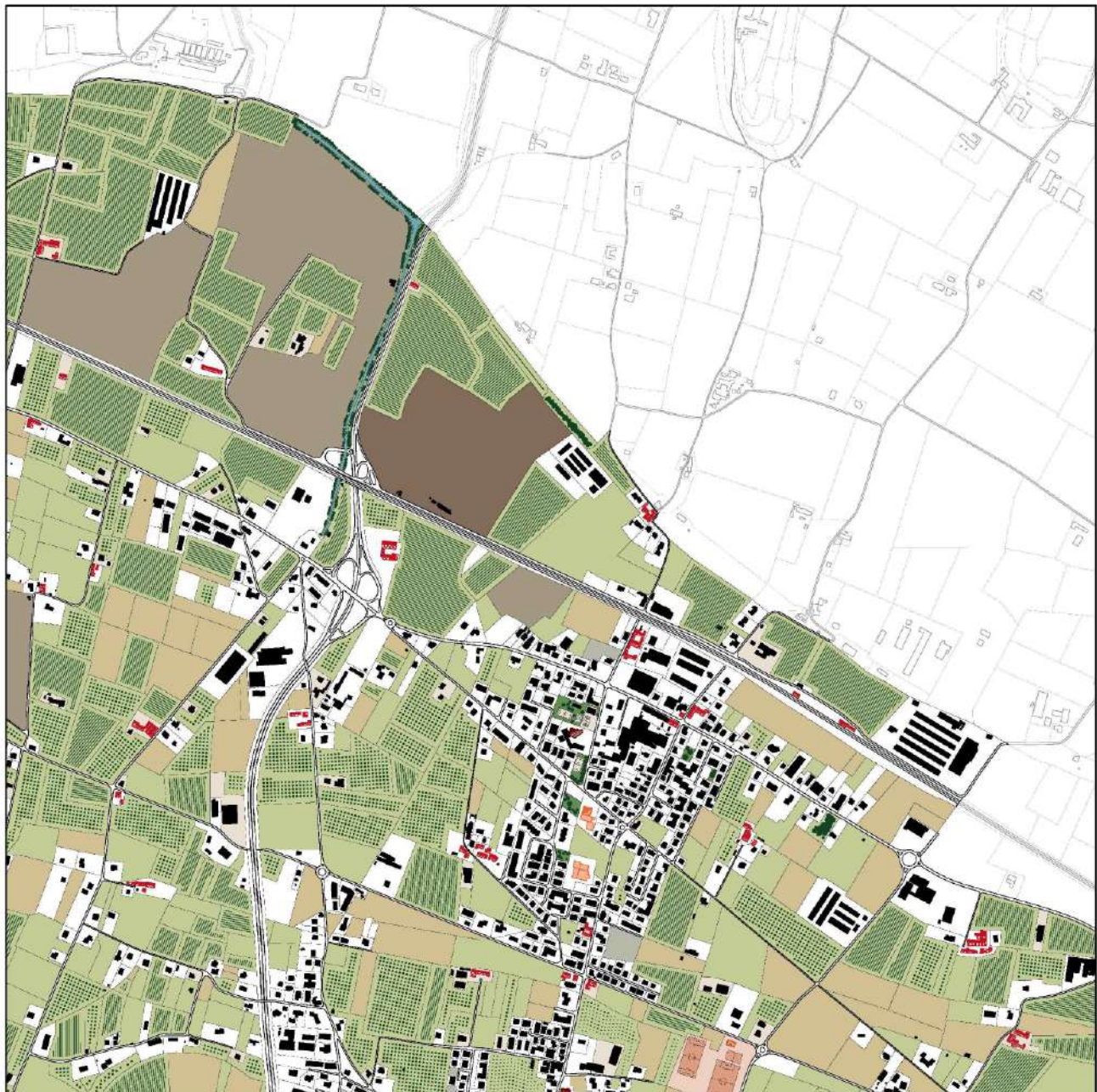


Figure 5. Plan of the Pescantina territory framed on the locality of Pescantina (scale 1:17.650; original scale 1:5.000).



- | | | |
|--------------------------------|-----------------------------------|-----------------------------|
| Built-up areas | Soil | |
| historical buildings | historical parks | quarries |
| church di San Pietro da Verona | public parks | Ca' Filissine landfill site |
| preschool | free building plots | football fields |
| primary school | meadows, pastures and arable land | |
| | vineyards | |
| | orchards | |
| | abandoned fields | |

Figure 6. Plan of the Pescantina territory framed on the locality of Balconi (scale 1:17.650; original scale 1:5.000).

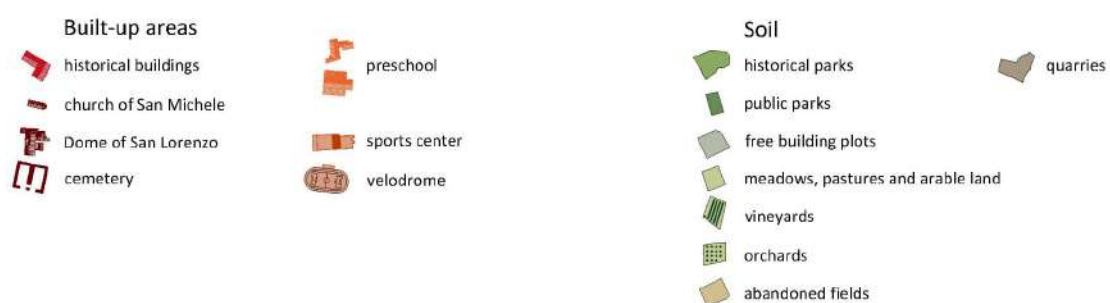
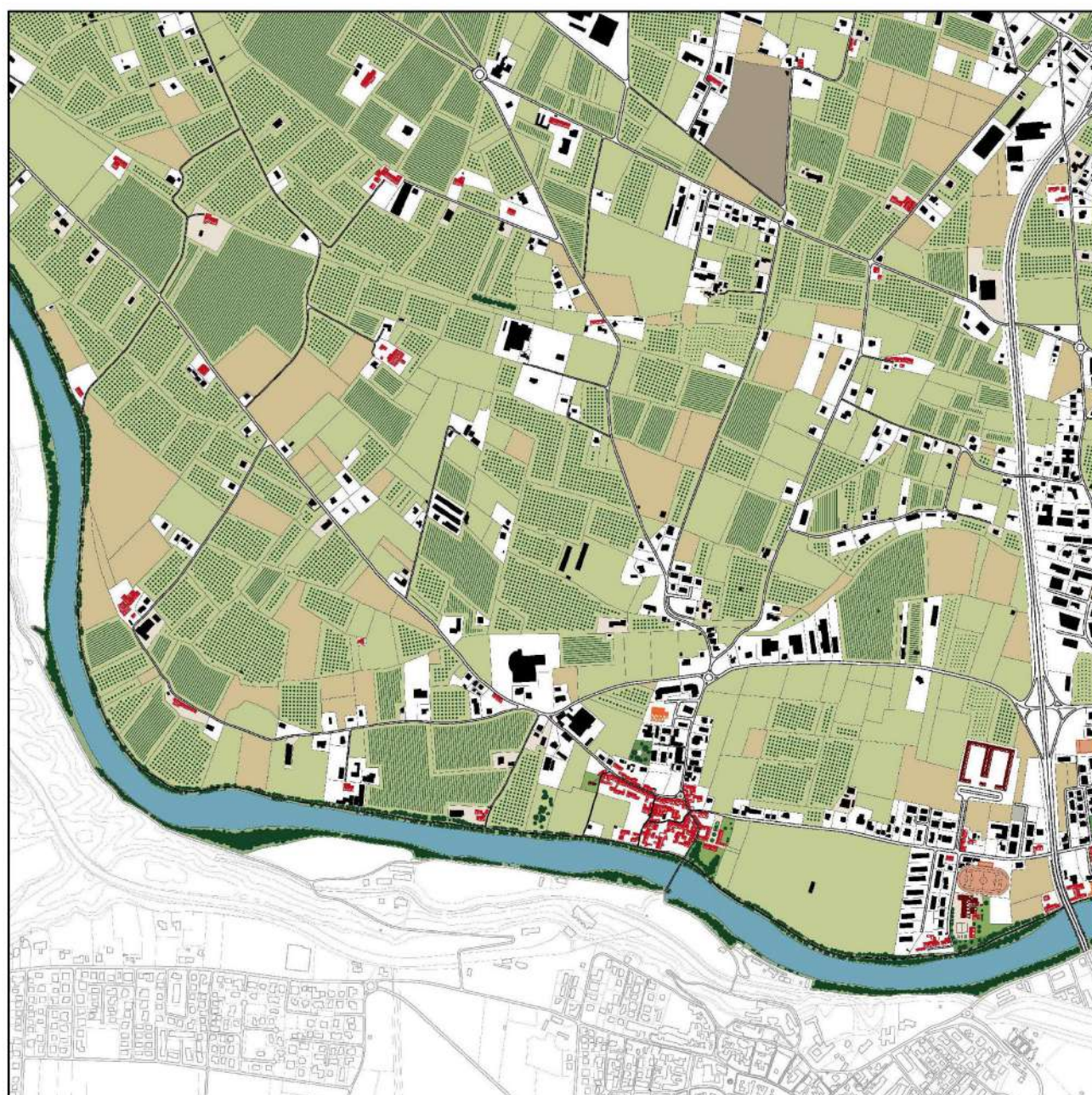
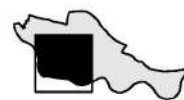


Figure 7. Plan of the Pescantina territory framed on the locality of Arcè (scale 1:17.650; original scale 1:5.000).

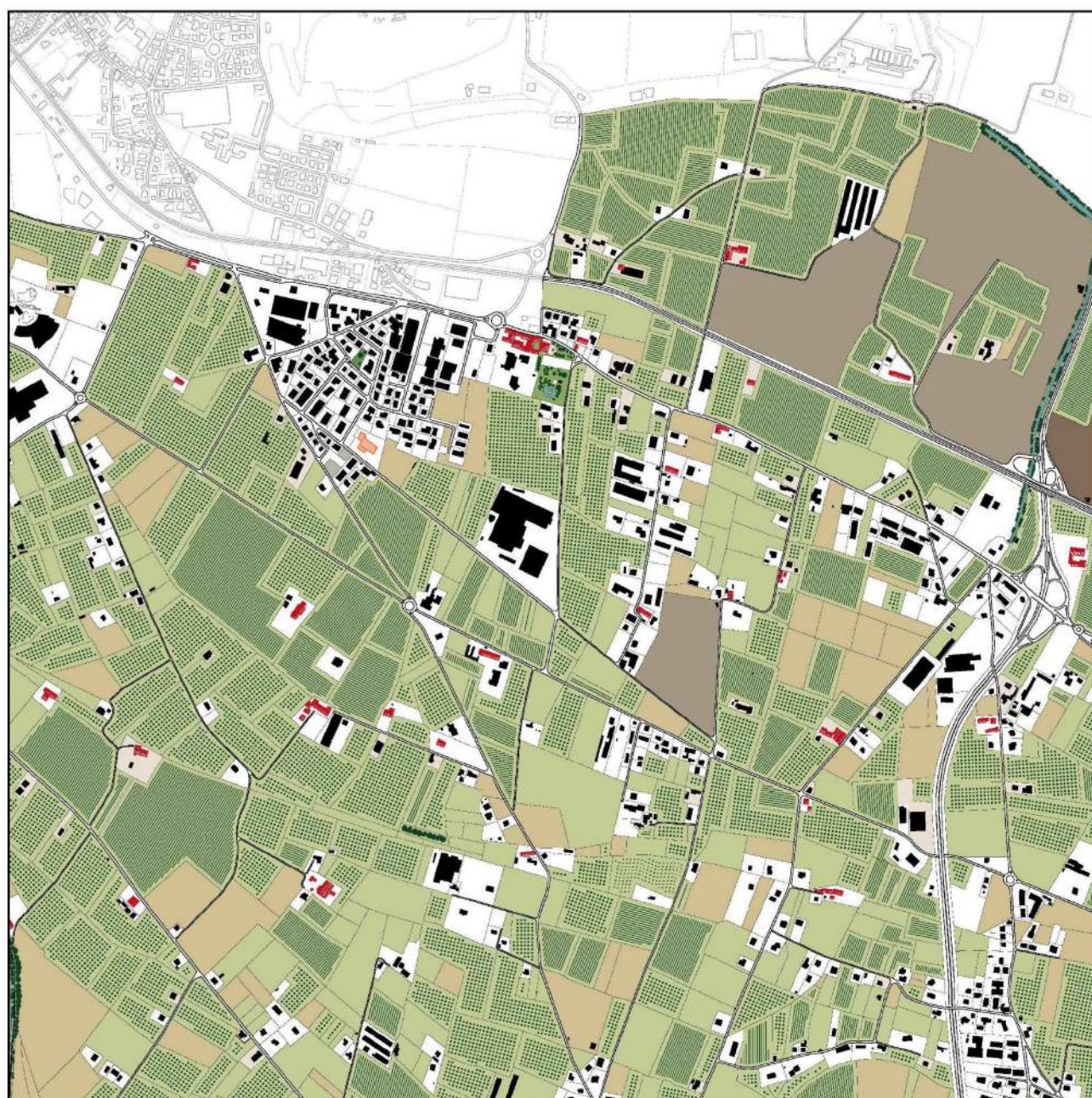
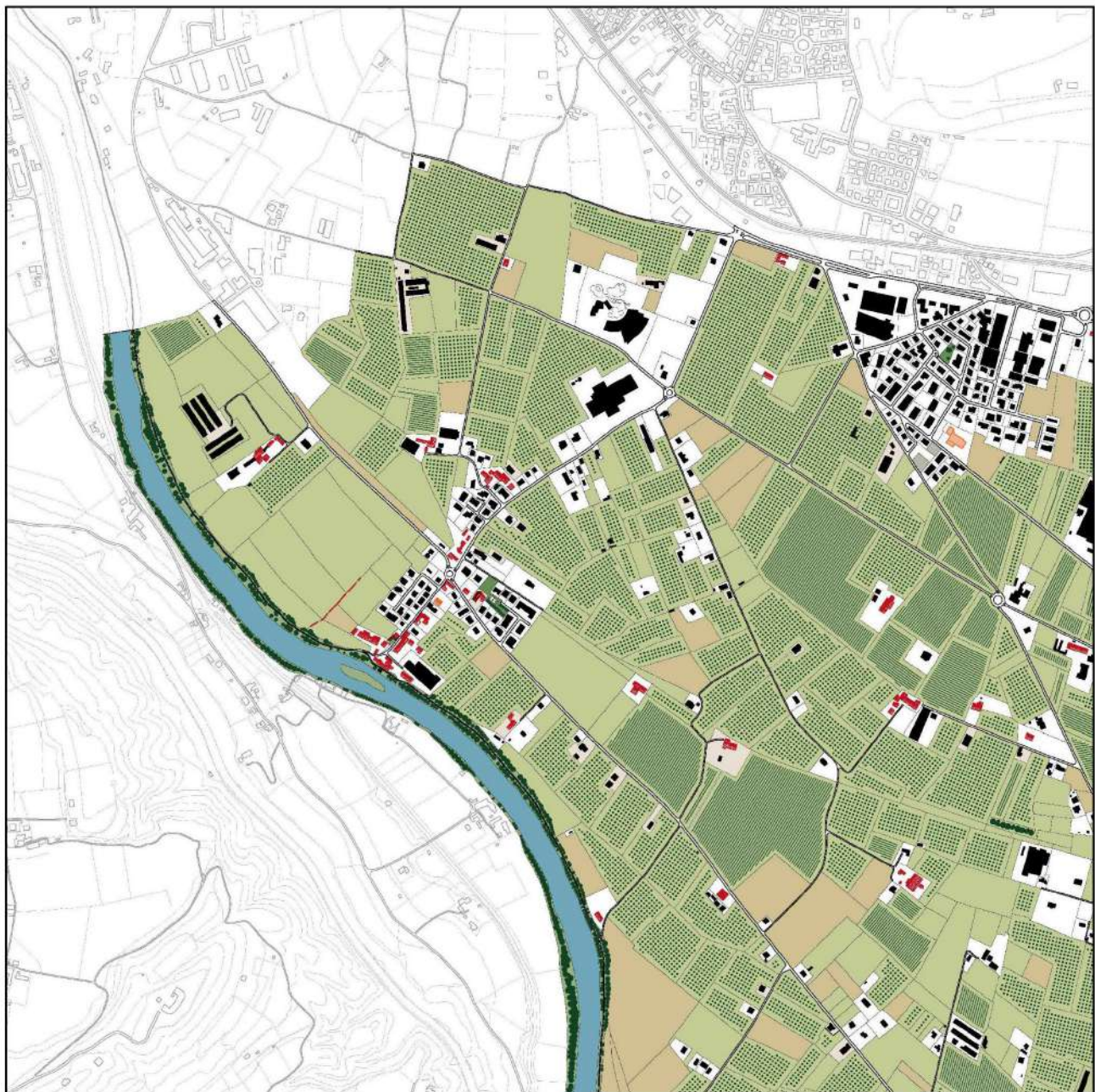


Figure 8. Plan of the Pescantina territory framed on the locality of Ospedaletto (scale 1:17.650; original scale 1:5.000).



- | Built-up areas | Soil |
|------------------------------------|-----------------------------------|
| historical buildings | historical parks |
| church of Santa Lucia di Pol | public parks |
| preschool | free building plots |
| secondary school | meadows, pastures and arable land |
| raised ditch from the 17th century | vineyards |
| | orchards |
| | abandoned fields |

Figure 9. Plan of the Pescantina territory framed on the locality of Santa Lucia (scale 1:17.650; original scale 1:5.000).



Figure 10. The border between the industrial area of Settimo and the rural area, Via Mirandola.



Figure 11. Historical centre of Pescantina, Piazza San Rocco.



Figure 12. Vineyard in Via Sacco; in the background, the river terrace near Arcè.



Figure 13. Residential area in Ospedaletto, Via Monte Pastello.

2.3 Critical issues of the Municipality of Pescantina

Some of the critical aspects of the Municipality of Pescantina have been highlighted above in the study of the fractions, namely the abandonment of fields and urban sprawl, with the consequent homogenisation of the landscape. However, if we also focus our analysis on historical buildings, we see that there are large portions of the building fabric in a state of abandonment. This creates a contrast in which the built-up area is gradually expanding, while at the same time the historical centres are emptying and falling into a state of increasing decay. These critical issues are summarised below in Figures 14 and 15.



Figure 14. Study drawing of the buildings (scale 1:60.000).



Figure 15. Study drawing of the agricultural land (scale 1:60.000).



Figure 16. Abandoned kiwi orchard in Santa Lucia, Via Pompea.



Figure 17. Example of urban sprawl in Pescantina, Via Piere.



Figure 18. Abandoned building in the centre of Pescantina, Via Are.

2.4 The structure of the territory

Before addressing the critical issues identified, a study is needed that goes beyond municipal boundaries and takes a broader view. By framing the Municipality of Pescantina within an area measuring 15,000 x 15,000 m, thus also including the surrounding areas, we will study the elements that characterise the landscape of this section of territory, first breaking them down and then reassembling them in a summary drawing, in order to finally identify the elements that make up the structure of the area.

The Adige river flows through the territory from north-west to south-east, initially meandering through the narrow final part of the Valdadige, which ends with the Chiusa di Ceraino. From here, it enters the Pianura Padana in a more rigid form until Santa Lucia di Pescantina, then resumes its sinuous course. In the northern part, to the right of the river, Monte Pastello rises and the hills of Valpolicella extend, sloping down to the plain and stopping at the railway line. On the left, however, the morphology is different. To the northwest are the morainic amphitheatre of Rivoli and the hills that stretch from Rivoli to Gaium. Continuing along the course of the Adige, a difference in height divides the flat territory, higher on the left and lower on the right, from Gaium to Bussolengo, where the terrain gradually levels out on both sides of the river. Before reaching Bussolengo, to the southwest, you can see the morainic hills that stretch from Pastrengo to Sona and then continue to Sommacampagna. The flat land that opens up from the Chiusa di Ceraino and expands below the river from Bussolengo is the result of shifts in the course of the Adige and the consequent deposition of alluvial materials. This part of the plain is therefore not uniform but is characterised by terraces, which can also be seen in the layout of the agricultural plots.

In addition to the Adige river, the hydrographic network is dense, especially in the northern part, characterised by waters that originate in the hills and flow down to join the river. Of particular importance are the *progni* (streams) of Fumane and Negrar, which discharge into Settimo and Nasser respectively. South of the Adige, on the other hand, there are fewer watercourses, but the canals that draw water from the Adige for agricultural and hydroelectric purposes are important. The hydroelectric power stations of Bussolengo and Chievo are located in the area under consideration.

From a transport point of view, the area intersects important communication routes. To the west runs the Brenner Highway, while in the centre is the Tangenziale Ovest (motorway), which connects the Verona North tollgate with Valpolicella, ending with a roundabout between Bure and San Pietro Incariano. Near Balconi, this intersects with the Verona-Trento railway line and the Via Nazionale del Brennero, which, starting from their meeting point in Parona, run almost parallel, cutting through the territory from south-east to north-west, where they flank the Adige river. The Brennero road follows the route of the ancient Roman military road Claudia Augusta, passing through the villages of Settimo, Balconi and Ospedaletto. The secondary road network divides the territory, forming a dense web that starts from the historical centres and gradually thins out as it moves towards the countryside and the hills.

The landscape is highly urbanised. Focusing on the built environment, although it varies in density – greater in the towns and villages of the plains and at the foot of the hills and industrial areas, sparser as one moves towards the agricultural areas – it is difficult to understand where the town ends and the countryside begins. The agricultural fabric is fragmented, gradually conquered by urban expansion. The result is a peri-urban landscape without boundaries, in which town and countryside form a single mass, which makes the recognition of the different parts that characterise the landscape almost impossible.

The diagram in Figure 24 summarises the parts of the analysis to obtain a unified image of the territory, in which the elements that compose it are simultaneously recognisable. The orographic characteristics of the region, crossed by the Adige river, with its secondary hydrography, can be seen. The contrast between historical centres and urban sprawl, which contributes to the fragmentation of agricultural land, is recognisable. Finally, the road network is shown, with the cross formed by the intersection of the Tangenziale with the Brennero road and the railway, the highway and the division of the territory given by the network

of secondary roads. The streets relating to allotments, which are of lesser importance in the design of the region, are not shown.

By interpreting the drawing in Figure 24, it is possible to identify the elements that characterise the structure of the area under consideration. The immediately recognisable elements are the hydrographic network, the orography, the historical centres and the primary road network (highway, motorway, Brennero road and railway). However, if we focus our attention on the agricultural land in the flat portion, we can see that the fields form lines that correspond to the river terraces described above (Figure 25). From here, focusing on the northern part of the Adige river, which includes the Municipality of Pescantina, it is possible to identify areas defined by the river terraces (Figure 26). These areas are divided into different levels, both morphologically and figuratively, with the first containing the second and third, the second containing the third and being contained by the first, and the third being contained by the second and first. We can therefore identify the morphological units that complete the territorial structure of the region in consideration (Figure 27), which will be the starting point for the development of the project.



Figure 19. Orthophoto of the area comprising the municipality of Pescantina (scale 1:88.235).

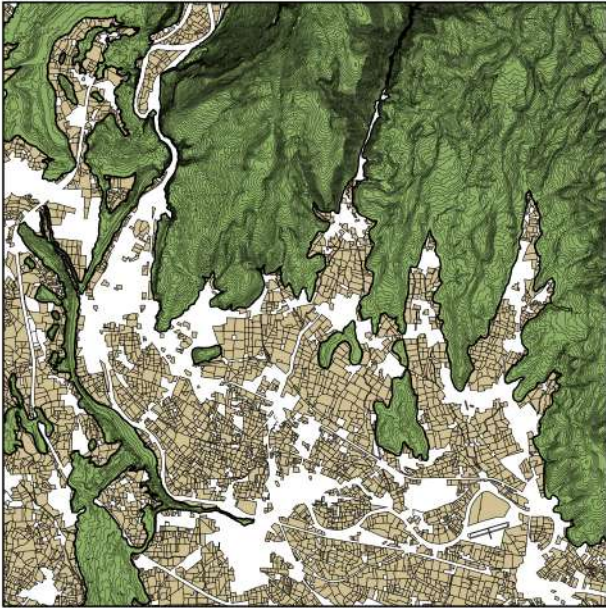


Figure 20. Drawing of the orography and soil (scale 1:187.500; original scale 1:25.000).

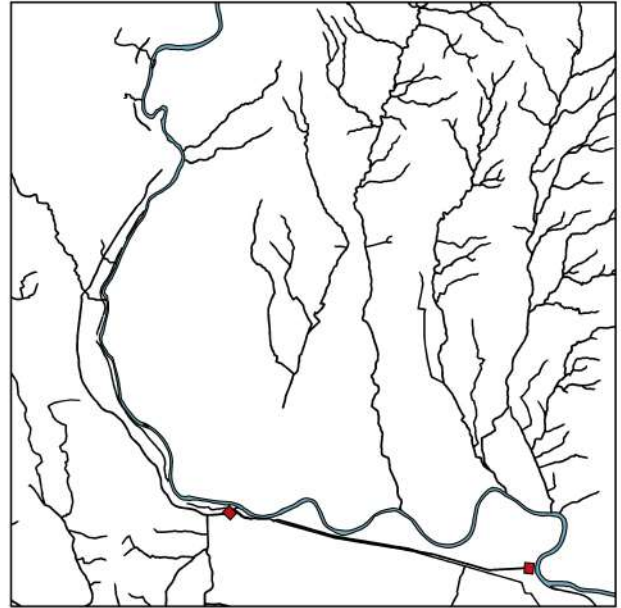


Figure 21. Drawing of the hydrographic network (scale 1:187.500; original scale 1:25.000). Hydroelectric power stations are shown in red.

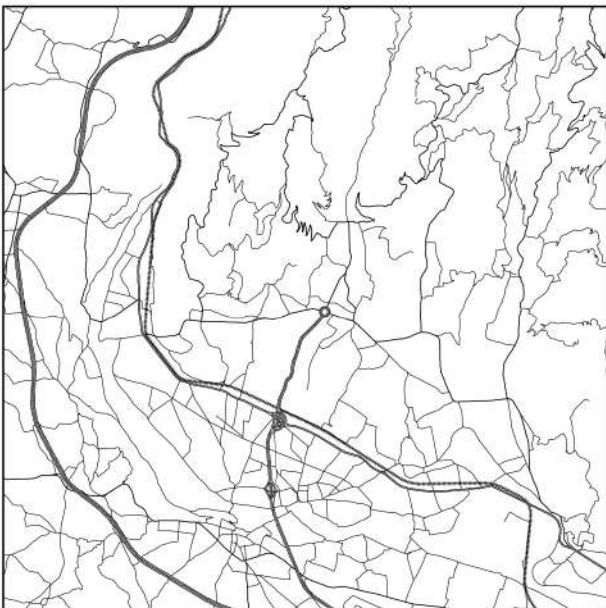


Figure 22. Drawing of the main system of mobility (scale 1:187.500; original scale 1:25.000).

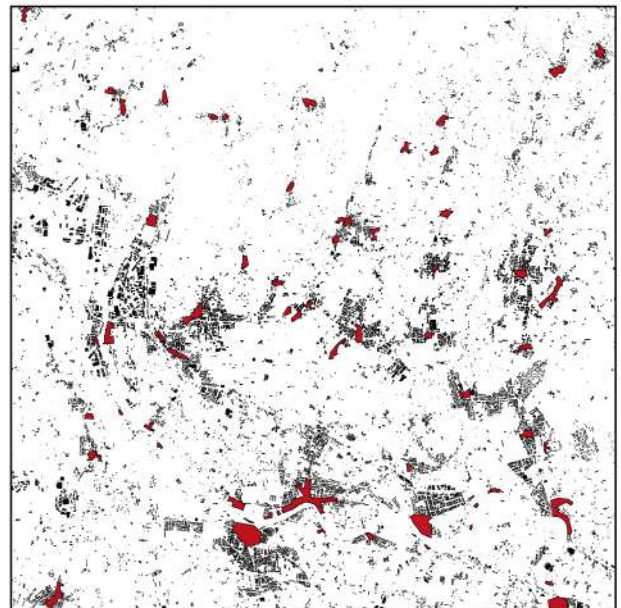


Figure 23. Drawing of the built-up areas (scale 1:187,500; original scale 1:25,000). Historical centres are shown in red.

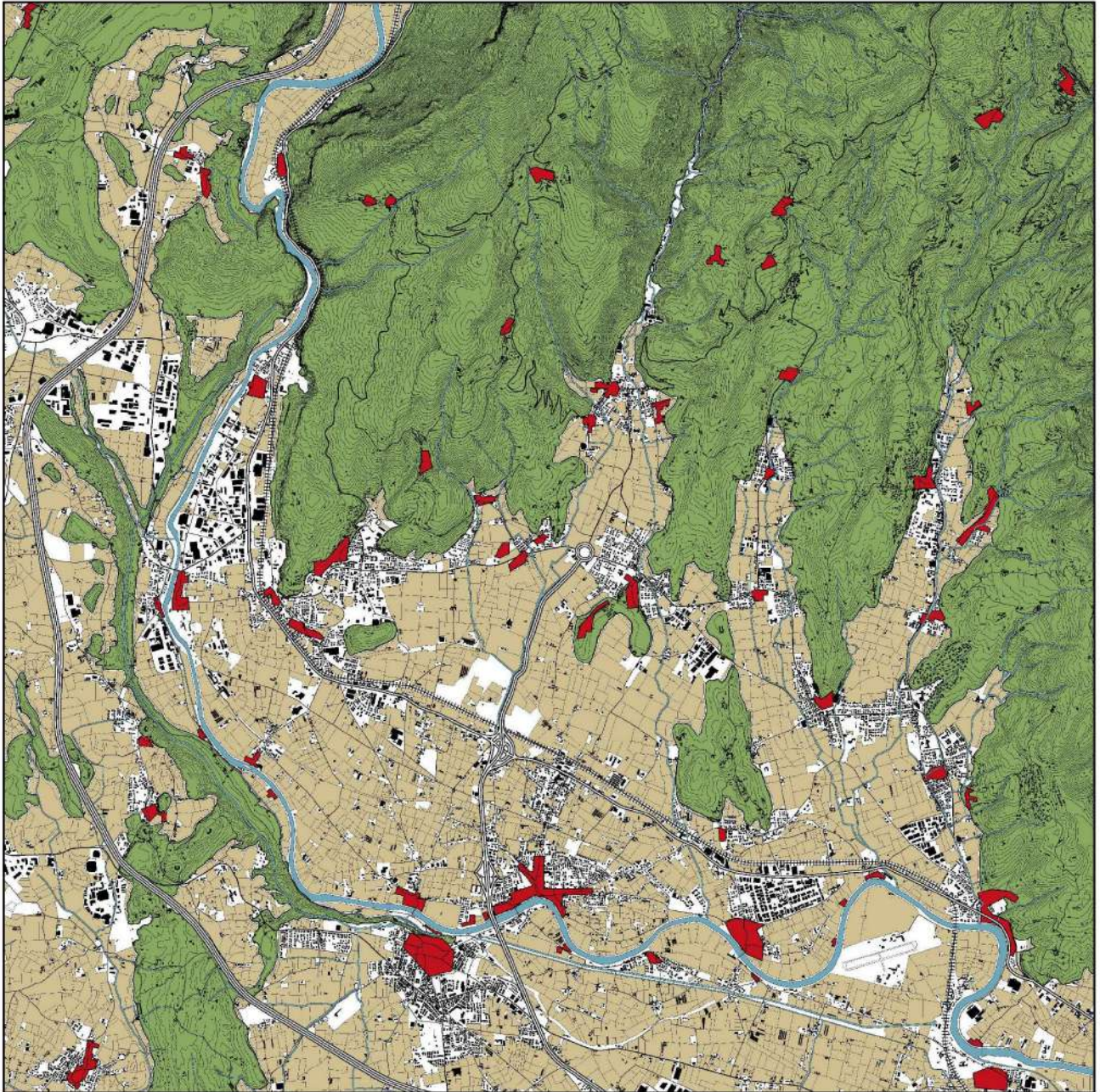


Figure 24. Analysis drawing of the area comprising the Municipality of Pescantina (scale 1:88.235; original scale 1:25.000).

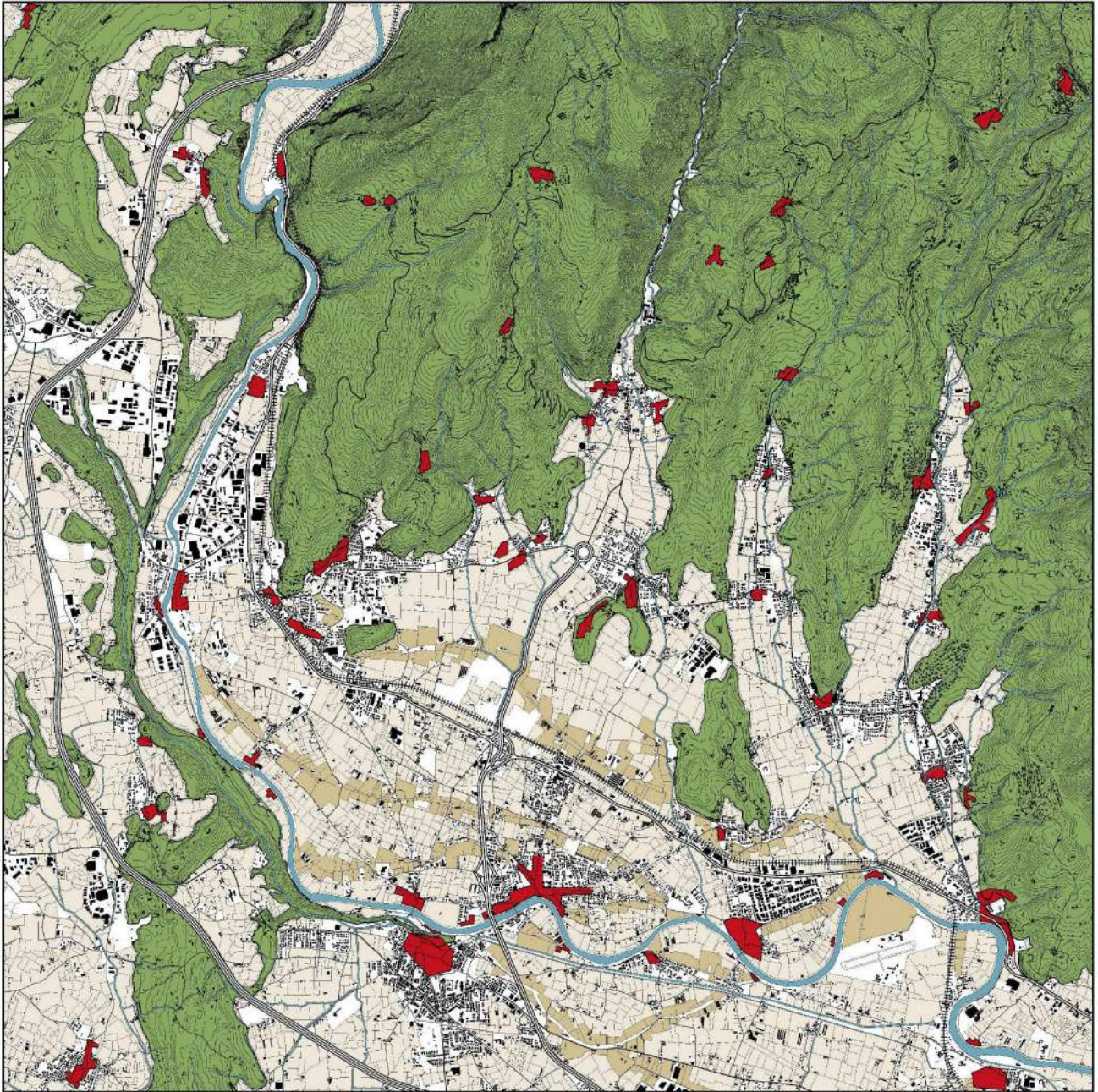
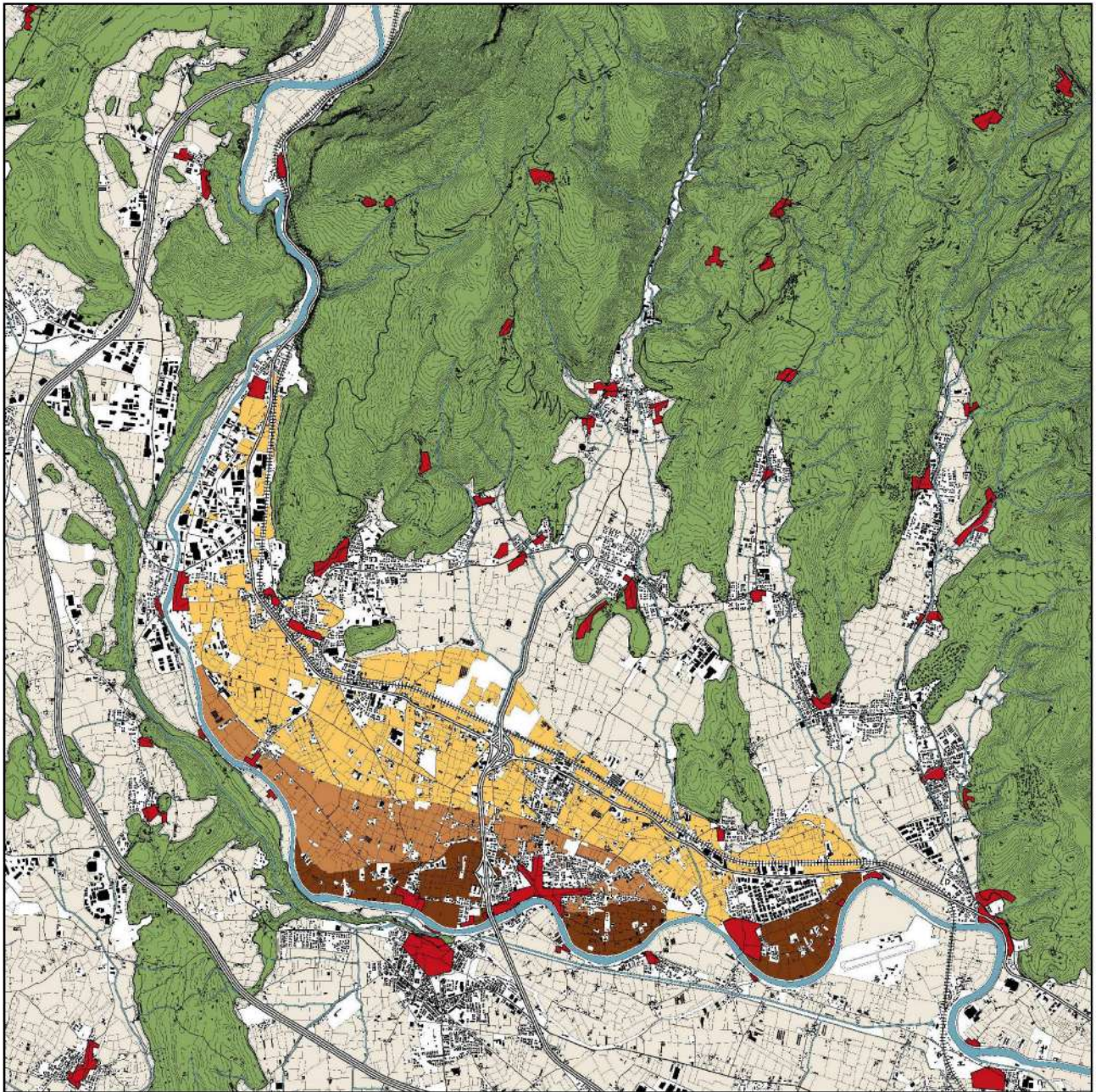


Figure 25. Identification of the river terraces by analysing the agricultural texture of the soil (scale 1:88.235; original scale 1:25.000).



I level

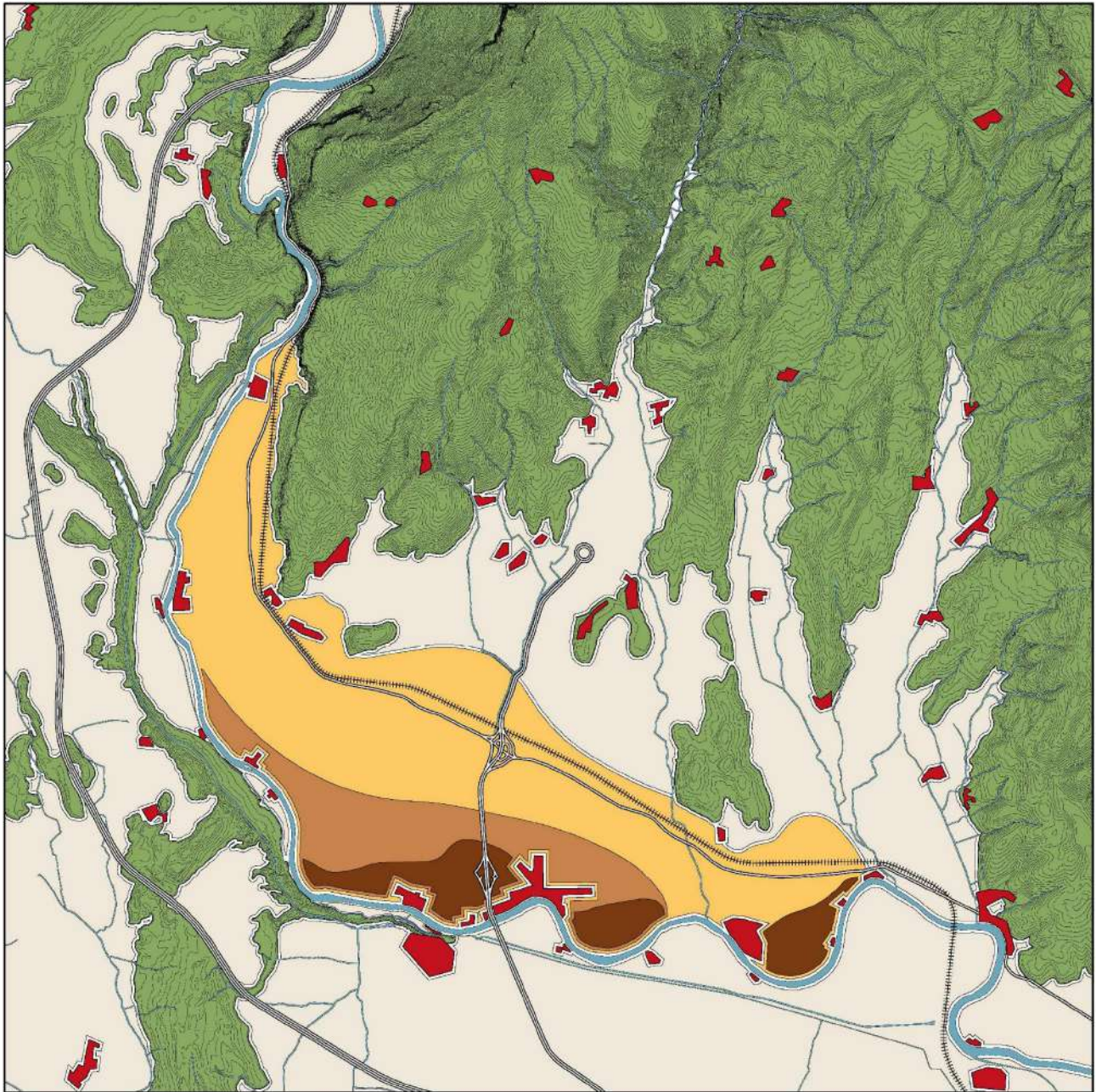


II level



III level

Figure 26. Identification of the areas defined by the river terraces (scale 1:88.235; original scale 1:25.000).



I level



II level



III level

Figure 27. Design of the territorial structure, identifying the morphological units defined by the river terraces (scale 1:88.235; original scale 1:25.000).

3. The diffuse city and the abandonment of the historic fabric

3.1 Land consumption and the reduction of differences between parts of the landscape

The *EU Soil Strategy for 2030*, approved in 2021, reaffirmed the goal of zero net land consumption by 2050, already presented in the 2011 *Roadmap to a Resource Efficient Europe* and in the *Seventh Environment Action Programme*. Italy, with its *Ecological Transition Plan (PTE)* approved in 2022, has even anticipated the achievement of this objective to 2030. However, the phenomenon of land consumption seems far from under control. According to ISPRA data, between 2006 and 2023, urbanised areas in Italy increased from 20,288 km² to 21,578 km², i.e. from 6.73% to 7.16% of the national territory. This means that 43,585 hectares have been lost. Veneto, surpassed only by Lombardy, has the second highest rate of land occupation in Italy, at 11.86%. In 2006, the data was 11.12%, consuming 13,447 hectares in 17 years, and the process does not seem to be stopping.

The continuous increase in urbanised areas alters our perception of the landscape, making places less recognisable. The problem of land consumption does not only concern environmental issues and hydrogeological instability, which are extremely important, but also the distinctiveness of different parts of the landscape. By its very nature, the city is constantly changing, adapting to socio-economic and environmental needs, but its indiscriminate expansion has caused it to lose its shape. The Veneto plain is an emblematic example of this, whose distinctive feature is the diffuse city, the result of the dispersion of buildings across agricultural land. The city-countryside duality has been broken, with the metamorphosis into a peri-urban landscape of indefinite shape and extent. The settlement of the Veneto plain, as Mauro Varotto noted, is “a city that has grown from an archipelago of islands, built as the sum of independent parts and individual possessions, but precisely for this reason “deprived”, missing, lacking a unified and shared design” (Vallerani, Varotto, 2005). The landscape is dotted with buildings that eat away at agricultural land, resulting in the formation of residual spaces and the presence of abandoned plots among private gardens.

Comparing the drawings in Figures 28 and 29, we can see how the homogenisation process has affected the area under consideration. While in the first figure it is possible to distinguish the villages from the rural buildings dotted around the countryside, the second shows large patches that break up and occupy the agricultural fabric. With the exception of mountainous areas and a few other zones, it is not possible to distinguish between different parts of the landscape, which appears as a homogeneous and undifferentiated occupation of the land. This results in the loss of the link between places and settlements, a link that used to differentiate the city from the countryside. Rural settlements are no longer complementary to agricultural work, but islands with no connections to the territory. Looking at historical buildings, we can see how they were functional to the management of the land, as they were isolated structures used to house farm labourers. Even modern agricultural sheds, despite their questionable architectural and landscape value, can fall into this category. More critical, however, are the new residences and industrial facilities that are taking over and further fragmenting the already precarious rural fabric.

This is also allowed by urban planning regulations, from which builders can consider themselves almost exempt. For example, some areas classified as part of the agricultural fabric in the *Intervention Plan (P.I.)* of the Municipality of Pescantina have become suitable for construction, classified under the heading “agreements between public and private entities”, effectively rendering the adoption of land use regulations useless. It is therefore necessary to adopt plans that address the banalisation of the territory and differentiate its elements, while ensuring a unified and recognisable representation of the landscape.

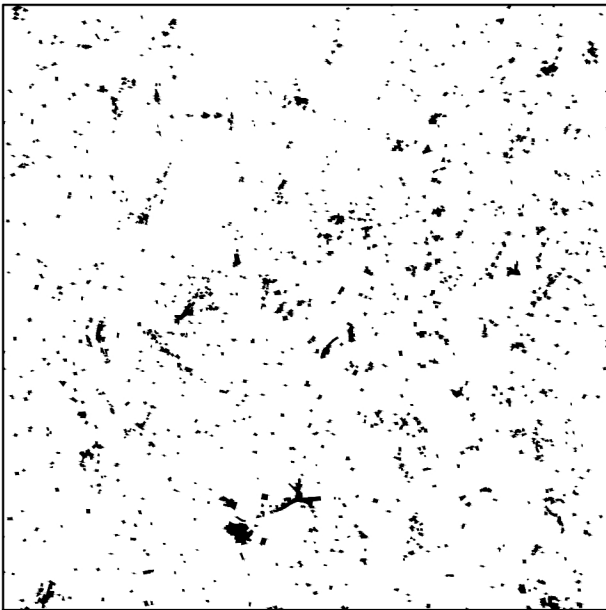


Figure 28. Plan of areas with historical buildings in the territory comprising the Municipality of Pescantina (scale 1:187.500; original scale 1:25.000).

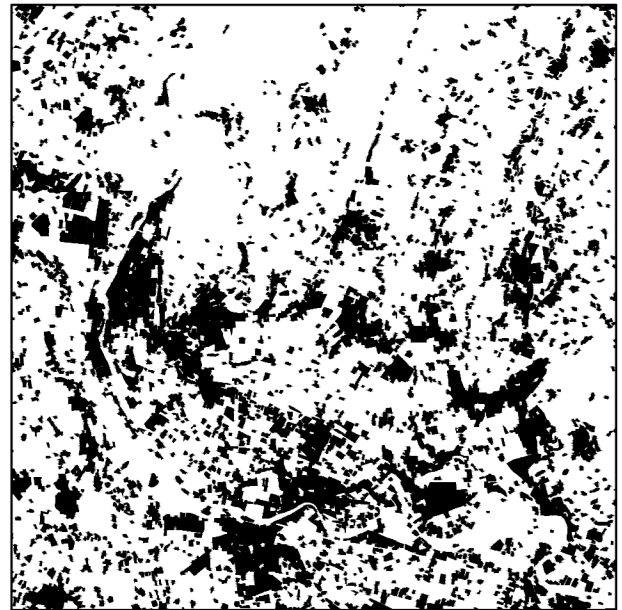


Figure 29. Plan of urbanised areas in the territory comprising the Municipality of Pescantina, updated to 2023; information taken from the Land Cover Database of the Veneto Region Geoportal (scale 1:187.500; original scale 1:25.000).

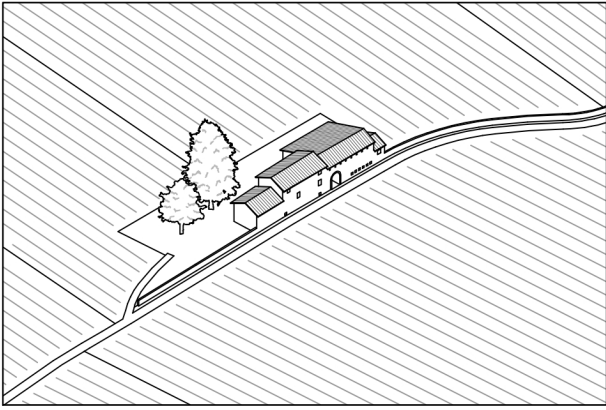


Figure 30. Study of buildings in agricultural areas; row houses for farm labourers.

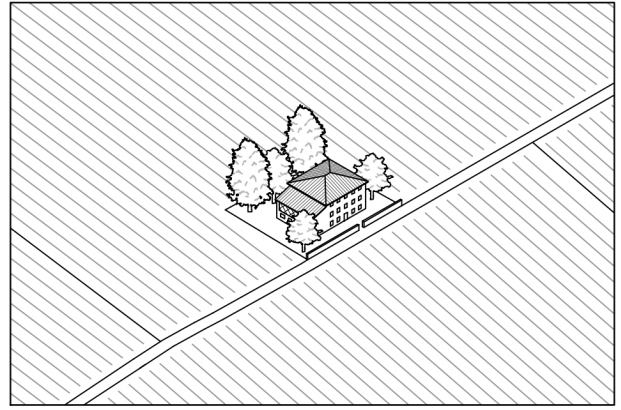


Figure 31. Study of buildings in agricultural areas; farm labourers' house.

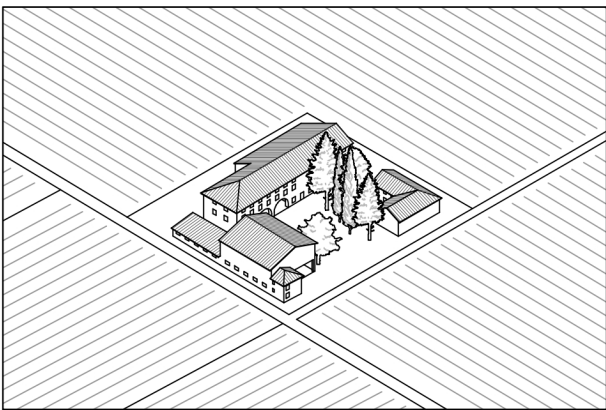


Figure 32. Study of buildings in agricultural areas; rural courtyard.

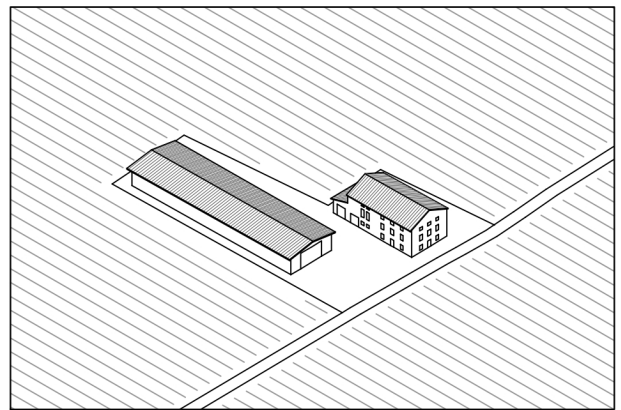


Figure 33. Study of buildings in agricultural areas; rural house with annexed agricultural shed.

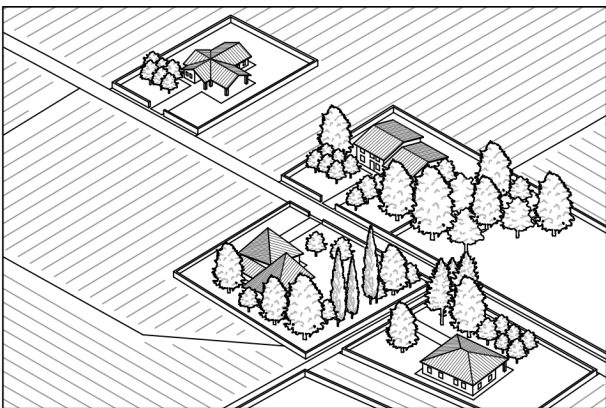


Figure 34. Study of buildings in agricultural areas; allotments.

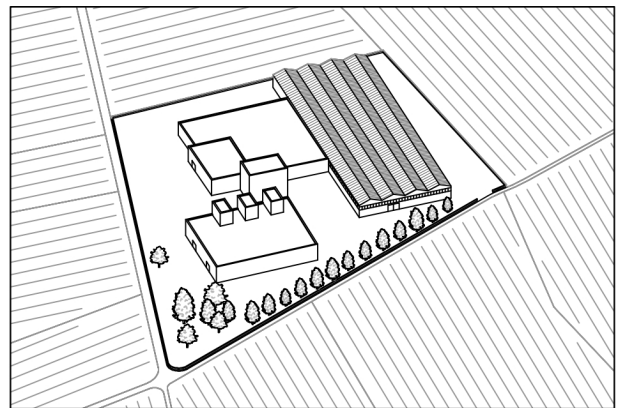


Figure 35. Study of buildings in agricultural areas; industrial warehouse.



Figure 36. New allotments in Ospedaletto, Via Belvedere.

3.2 *The abandonment of historical buildings and agricultural land*

In parallel with urban sprawl, historical centres and agricultural land are being abandoned, creating a phenomenon in which it is difficult to distinguish between cause and effect, or whether all three phenomena are both causes and effects of each other. The spread of cities into the countryside and the desire of inhabitants to move away from urban life, while maintaining their working ties, has encouraged depopulation and the abandonment of historical centres, which have been relegated to mere places of work. This is even more evident in smaller towns, which are less attractive and dynamic than cities, where the mix of inhabitants, businesses and tourism has encouraged the maintenance of the built environment. I will not dwell here on issues related to the commercial and tourist exploitation of cities, but will only examine the state of the built environment.

A walk through the centre of Pescantina is enough to notice the conditions in which it lies. Large areas are occupied by crumbling houses, fenced off for safety reasons. Recently, the road network has also been modified, with the closure of a section of Via Are due to the risk of a building collapsing. The town is made even less attractive by the heavy traffic passing through the streets of the centre. Thus, while the historical centre continues to deteriorate, the town continues to expand into areas classified as agricultural, which have become buildable thanks to agreements reached between the public and private sectors.

At the same time, agricultural land, in a dynamic of disinterest that increasingly marginalises it, is more and more in a state of abandonment. Between 1982 and 2020, the year of the *7th General Agricultural Census*, the number of farms in Italy decreased by almost 65%. Without going into the policies that are leading to this decline in agriculture and the related socio-economic consequences, what we can see from a landscape point of view is the neglect of the territory. This neglect, in addition to environmental and hydrogeological problems, alters the perception of the agricultural landscape, no longer a cultivated garden, but a place of abandonment and building speculation. With no one left to cultivate the land, plots are at the mercy of the property market. This is also the feeling one gets when travelling through the Verona area, and Pescantina itself, once the home of peaches, has seen its orchards decimated, giving way to uncultivated land and new buildings.

The current state of the built environment and agricultural land in the Municipality of Pescantina can be seen in the drawings in Figures 14 and 15.

A reversal of this trend is needed, one that truly protects agricultural land by promoting small-scale initiatives and restoring to the countryside what belongs to it, i.e. land, which is increasingly being taken away by real estate interests.



Figure 37. Abandoned field and house of the diffuse settlement in Pescantina, Via Piere.



Figure 38. Street closed due to a collapsing historical building in Pescantina, Via Are.

4. The project: *quare* and *bine*

4.1 The reinforcement of the territorial structure of the Municipality of Pescantina

Starting from the analysis carried out previously and concluded with the recognition of the elements that form the structure of the territory (Figure 27), the project seeks to address the critical issues identified in the study of the Municipality of Pescantina. The approach adopted is based on the idea of a landscape made up of different and recognisable parts, which at the same time guarantee a unified vision. This approach contrasts with the growing dynamics of urban sprawl, which homogenises places, making them difficult to distinguish. By addressing the issues highlighted – sprawl, abandonment of historic buildings, abandonment of fields – the intervention aims to make the parts of the region under consideration recognisable, restoring a unified image of the landscape. To this end, the project begins by reinforcing the territorial armature, consolidating some morphological signs, which become the boundary and frame of the different figures (Figure 39). This is where the title of the project comes from, *quare* and *bine*, Veronese dialect terms that indicate elements of the rural landscape and are used here in analogy with the parts of the intervention. The latter refers to the row of trees and the former to the space between two rows of trees. The *bine* are therefore the signs that are reinforced and the *quare* are the areas identified by these signs.

Starting from the identified areas, a programme is established, assigning each of them a function (Figure 40). The project sees Pescantina as a unified organism, in which the different parts are interconnected and collaborate with each other, while maintaining their formal and functional autonomy. The *bine* define agricultural and urban spaces. The *bina I* is a linear park that runs from Santa Lucia to the bend of the Adige River between Pescantina and Settimo, determining the difference between agricultural land and between agricultural and urban areas. At the same time, it acts as a mediating element between what is inside and what is outside, with different functions depending on the region it touches. To the west of the motorway are two agricultural spaces. The *quara I* sees the recovery of abandoned fields through the planting of biomass vegetation, used for energy production to supplement the municipality's needs, while the *quara II* is designed as an area dedicated to an agricultural research centre. Between the two *quare* is the *bina II*, which is a wooded strip that serves as a park and forms the background to the research centre. To the east of the motorway, two urban areas are defined, one between the *bina I* and *III*, the other between the *bina III* and the Adige River. The *quara III* occupies the space of the existing residential area, where the town is expected to continue to expand, while the *quara IV* will be occupied by a new residential area. This works in parallel with the restoration of agricultural land in regions characterised by urban sprawl, particularly in the areas of Balconi and Ospedaletto, villages that have grown as a result of building speculation. The process is based on the concept of zero net land consumption: in fact, it provides the possibility of reconstructing the buildings in these areas in the space of the *quara IV* once they have reached the end of their life cycle, while at the same time restoring the rural landscape. The system of rooms is also reflected in the road network (Figure 41): most of the territory is walkable, particularly the residential area, which is completely pedestrian, taking inspiration from the 15-minute city, according to which all essential services must be reachable within 15 minutes on foot or by bicycle from one's home. For this reason, the *bina III* serves as a forested car park, making it possible to make the entire village pedestrian. The roads connecting to the motorway and the bridges crossing the river, those outside the *bina I* and some that cross the agricultural areas remain accessible by car. Of particular importance is the road that runs parallel to the *bina I*, touching the residential area, which becomes the access point to the town and is therefore connected to the motorway. The agricultural spaces are also largely pedestrianised, with the aim of making them part of a single agricultural park. The last part is located in the fraction of Settimo, where initiatives related to social agriculture are promoted, contributing to the recovery of abandoned fields. Here, the *quara V* is separated from the industrial area by the tree-lined

belt of the *bina IV*. At the same time, the abandoned historical buildings in the municipality are being restored, with most of them being used for social housing and residences for migrants. The latter are given the opportunity to work in agriculture, particularly in the *quara V* area, where social farming is encouraged.

In this way, the Municipality of Pescantina becomes a dynamic environment, where the various parts, although distinct and recognisable, work together to form a unified image of the territory. Abandoned fields are reclaimed by promoting agriculture, which provides biomass to generate energy for internal use. Abandoned buildings are reused to provide housing for migrants, who can then work in agriculture. At the same time, a process of building densification and simultaneous restoration of agricultural land is carried out, in order to restore recognisability to the different parts of the landscape.

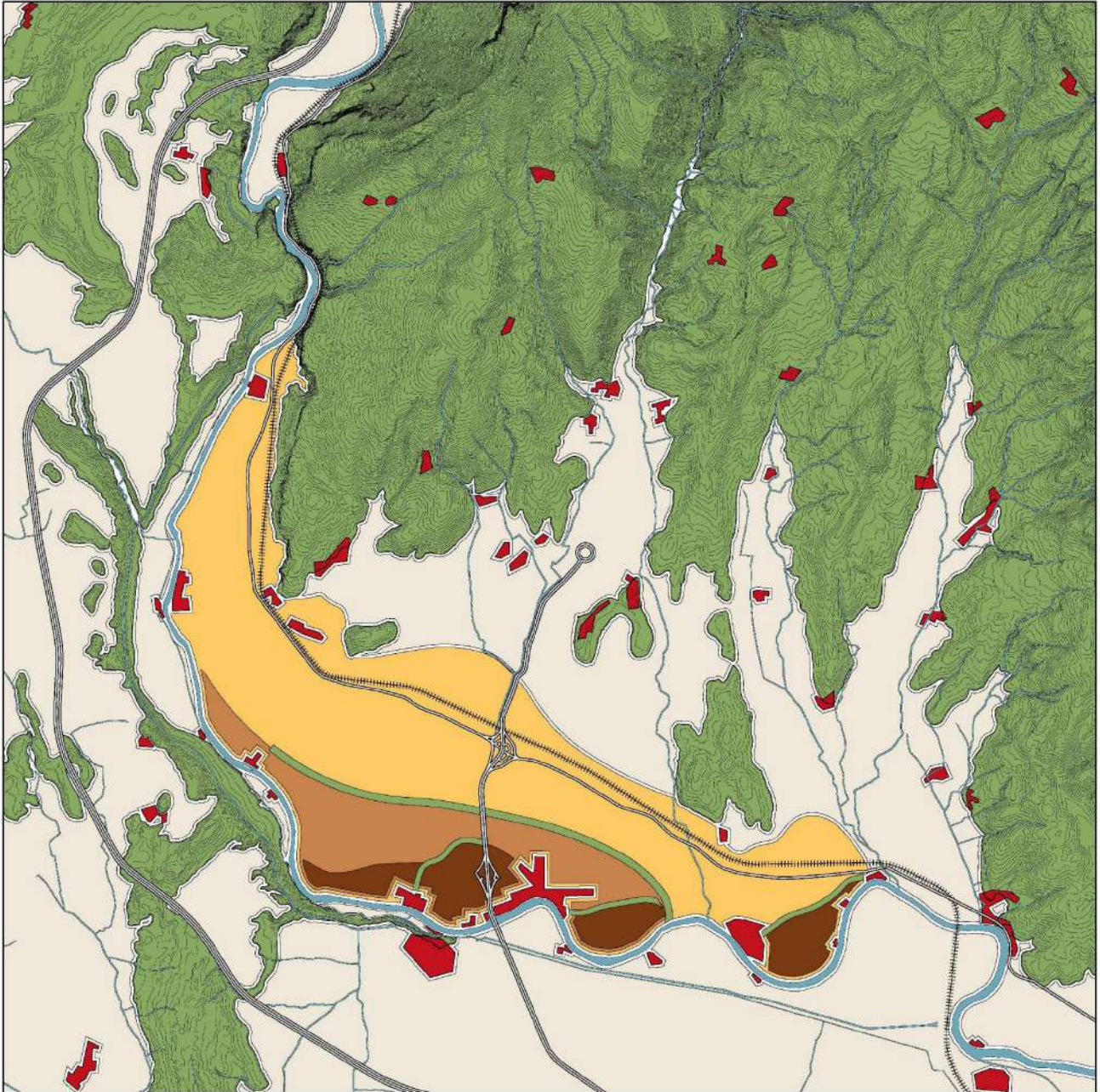


Figure 39. Reinforcement of territorial structure (scale 1:88.235; original scale 1:25.000).

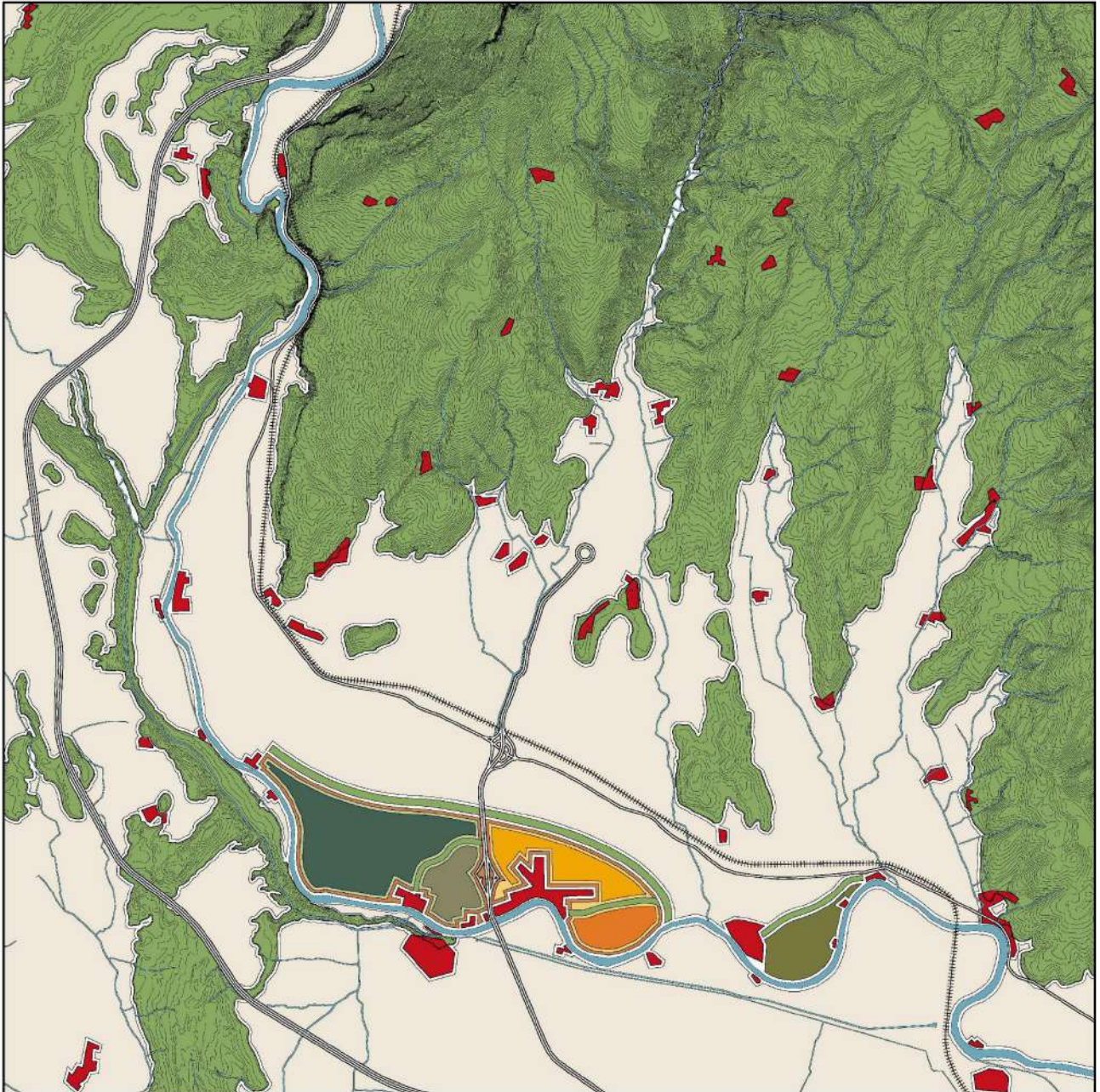
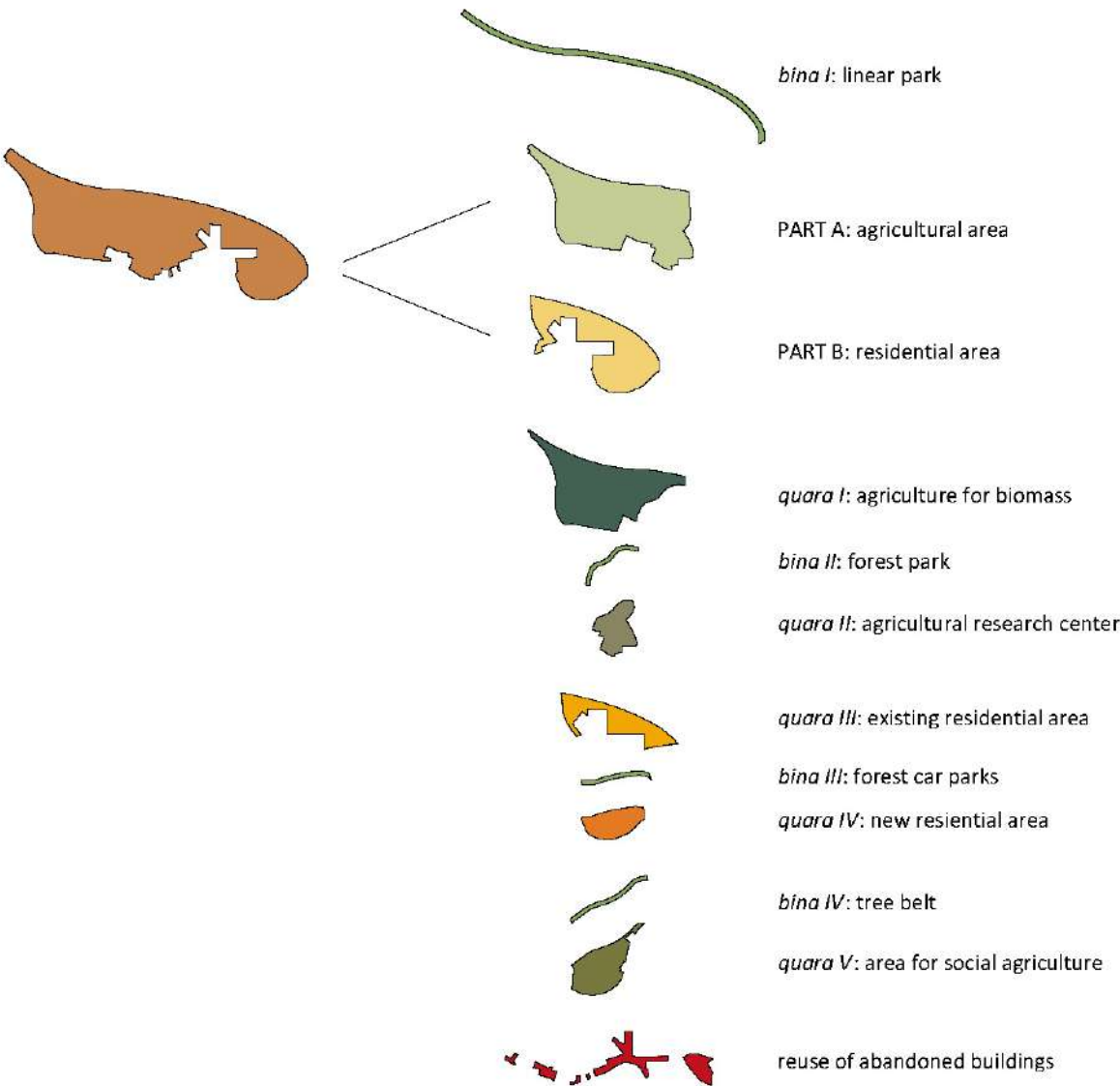


Figure 40. Identification of the parts of the project, assigning them their own function (scale 1:88.235; original scale 1:25.000).

Legend



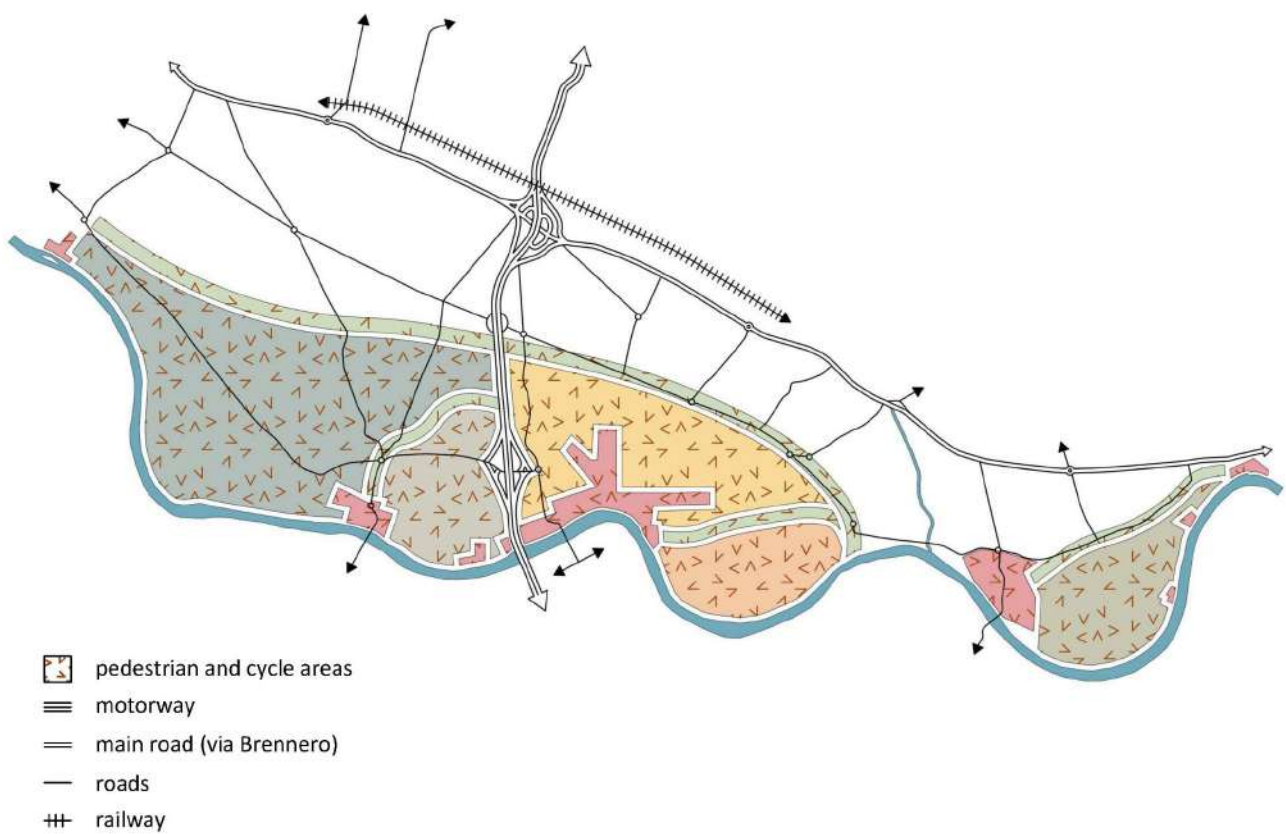


Figure 41. Scheme of the main system of mobility.

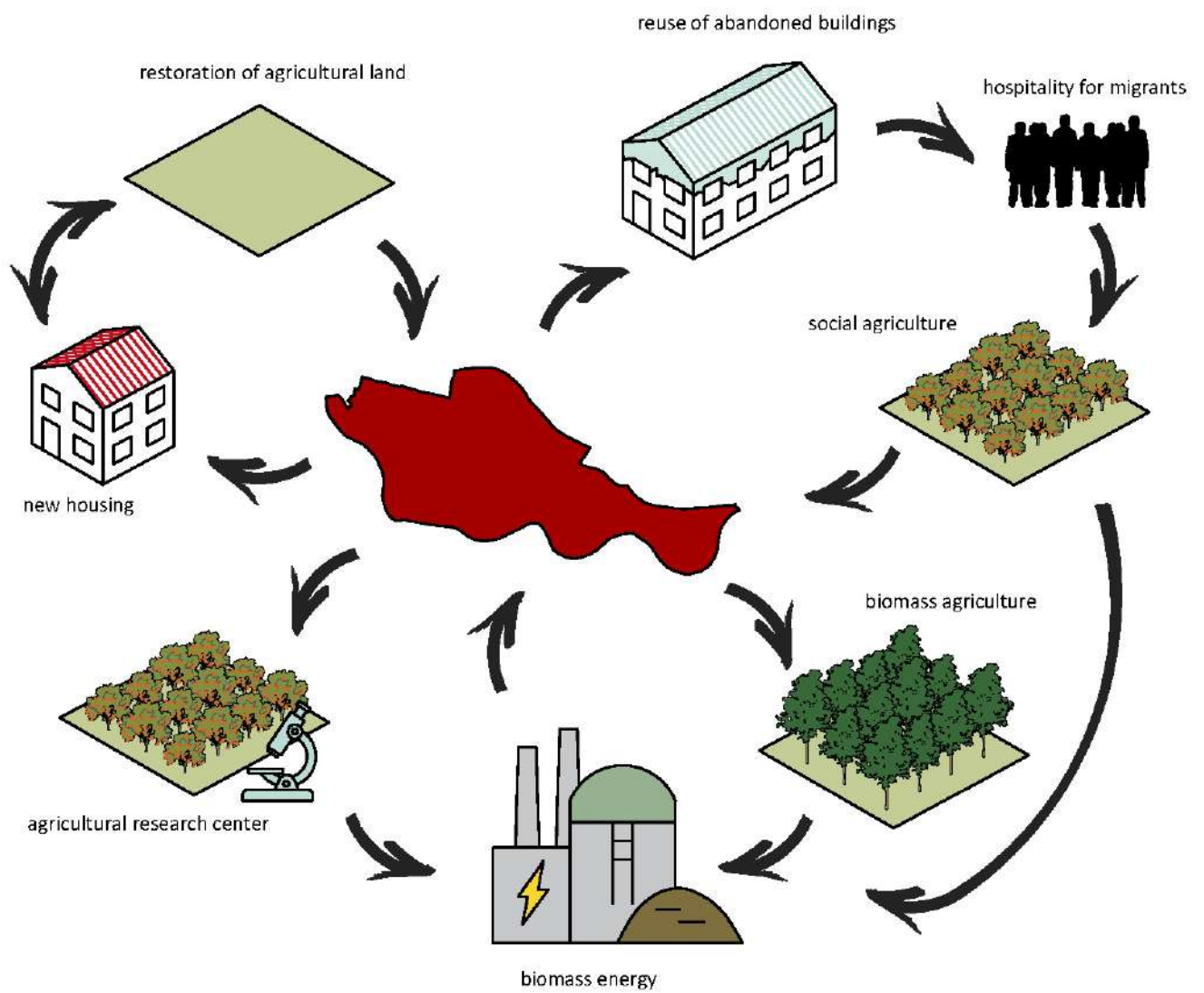


Figure 42. Scheme of the functional programme.

4.2 The parts of the project: quare and bine

BINA I

The *bina I* extends along the river terrace that runs from Santa Lucia to the bend of the Adige between Pescantina and Settimo, reinforcing it. It is designed as a linear park that varies in structure depending on the areas it borders, acting as both a frame and a mediating element. The northern part consists of slight terraces planted with vineyards, culminating in a panoramic cycle path lined with two rows of trees. Starting from Santa Lucia and heading towards the motorway, we encounter a botanical garden, an educational farm and a space dedicated to outdoor events. To the left of the motorway, Via Moceniga becomes the main road of the village of Pescantina, embracing it and connecting it to Settimo. This road also becomes the boundary of the built-up area and the pedestrian area of the town. The fact that the village is exclusively pedestrianised makes it necessary to include parking areas, in the form of wooded car parks and an underground car park near the sports area. The park offers a variety of functions: green areas, playgrounds, sports areas and municipal vegetable gardens.

As mentioned, the *bina I* also acts as a mediating element between the fields and the buildings. Along the terraces to the north and along Via Moceniga, there are two rows of trees that branch out towards the village, forming green rooms that define the limits of possible urban expansion. As for the areas north of the *bina I*, it is expected that, at the end of their life cycle, the buildings can be rebuilt within the spaces of the *quara IV*, while at the same time restoring the agricultural land and densifying the built-up area near Pescantina.

QUARA I

The *quara I* provides for the recovery of abandoned fields through the planting of biomass trees, in order to supplement the municipal energy needs. Here too, the gradual rural conversion of areas of urban sprawl is planned, providing the possibility of rebuilding within the *quara IV*, while maintaining buildings linked to agricultural work. These spaces will also be cultivated for biomass.

BINA II AND QUARA II

The *bina II* marks the boundary within which the development of an agricultural research centre is conceived, using existing agricultural spaces and abandoned fields, and making use of the warehouses already present near the village of Arcè. The difference in terrain height is emphasised by defining a wooded area to serve as a public park, which forms the background to the research area and offers a panoramic view of the landscape from its summit. A possible expansion and densification of the town of Arcè is foreseen, always working in terms of zero net land consumption.

QUARA III AND HISTORICAL CENTRE OF PESCONTINA

The areas of the *quara III* and the historical centre of Pescantina are being rethought as entirely walkable, in order to ensure a better quality of life in the town, especially in the centre, which is currently in a state of abandonment. The reference model is that of the 15-minute city, where all essential services can be reached within 15 minutes on foot or by bicycle from one's home. An attempt is being made to restore and revitalise

the historical centre by reusing abandoned buildings: it is planned to open a public nursery, move the library to a larger and more suitable space, and reuse most of the disused buildings for social housing and migrant accommodation. The migrants housed here are then given the opportunity to work on social farms, in an effort to contribute to their integration. Finally, a new school complex is being designed, which is necessary due to the densification of the town.

BINA III AND QUARA IV

The *bina III* and the bend of the Adige River define the space of the *quara IV*, a place for possible new urban expansion. As mentioned above, it will accommodate the relocation of buildings from the urban sprawl and outside the *bina I* once their life cycle has ended. The new construction will require new parking spaces, as the village is entirely pedestrian. For this reason, the *bina III* is designed as a forested car park. The new urbanisation takes place within a number of green urban rooms, delimited by rows of trees and whose design follows the layout of the agricultural plots. It does not extend as far as the river, but remains separated from it by a public park area, allowing the river vegetation to expand.

BINA IV AND QUARA V

The *bina IV* and the *quara V* are located in the fraction of Settimo, detached from the other parts of the project. In the spaces of the *quara V*, the recovery of abandoned fields is encouraged by promoting social agriculture initiatives, offering work and inclusion opportunities to migrants welcomed in the municipality by reusing abandoned buildings. The area is separated from the industrial zone by reinforcing the river terrace with a tree-lined belt, which also continues along the gardens of the historic villas, in order to obstruct the view of the warehouses. Here too, the gradual demolition of the buildings of the urban sprawl and densification near the current residential area are hypothesised.

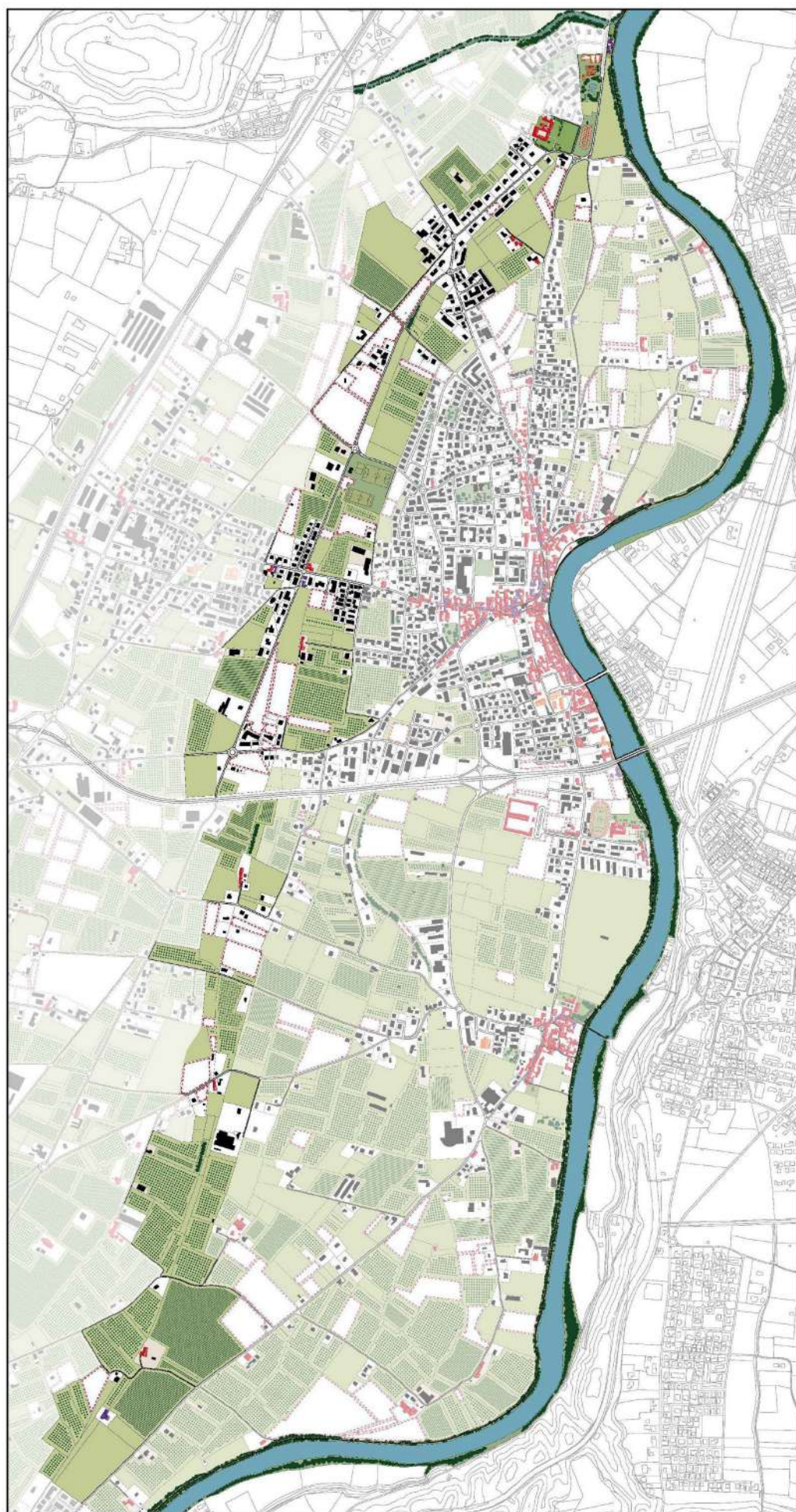


Figure 43. Present situation of the river terrace of the *binā* / (scale 1:22000; original scale 1:5000).

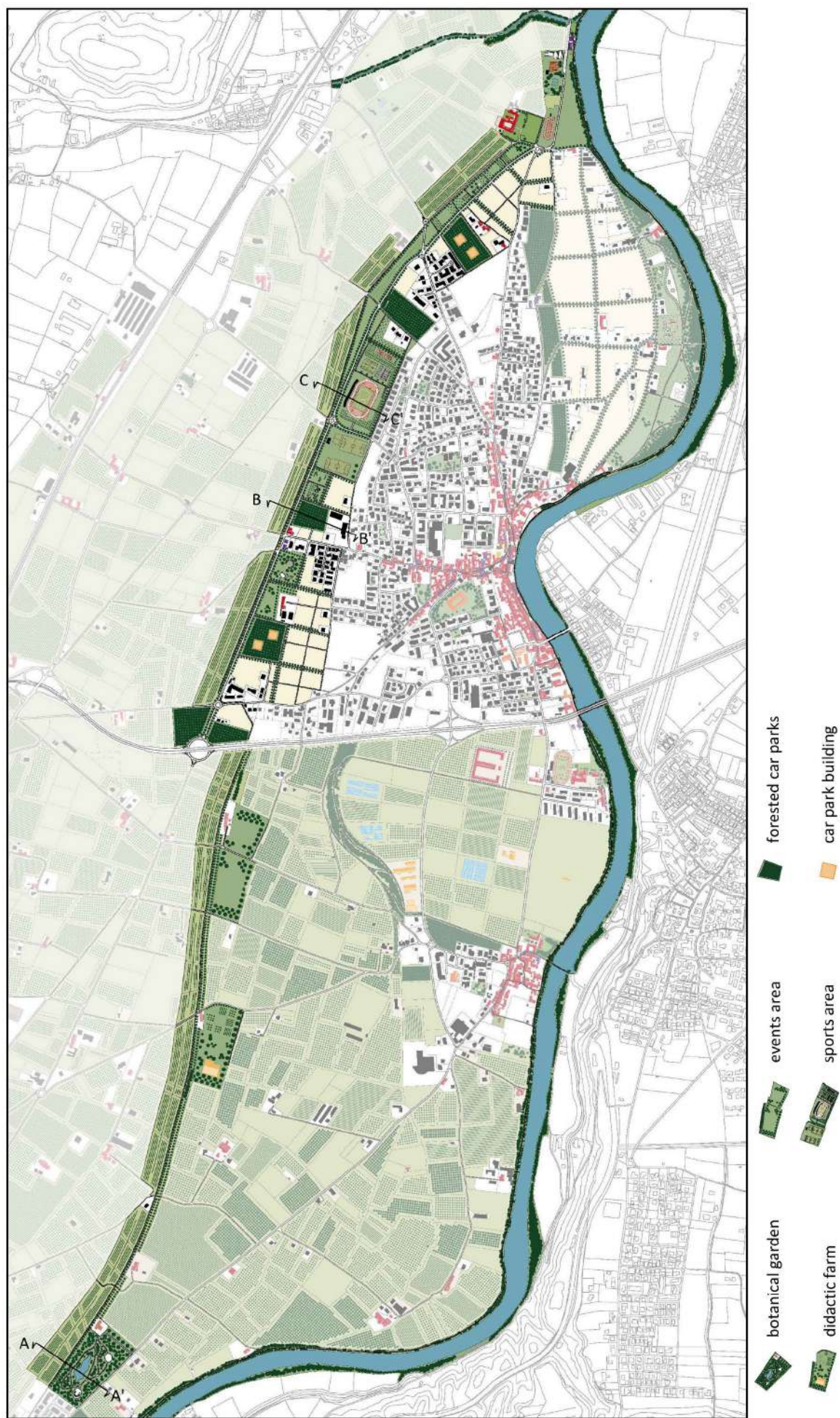


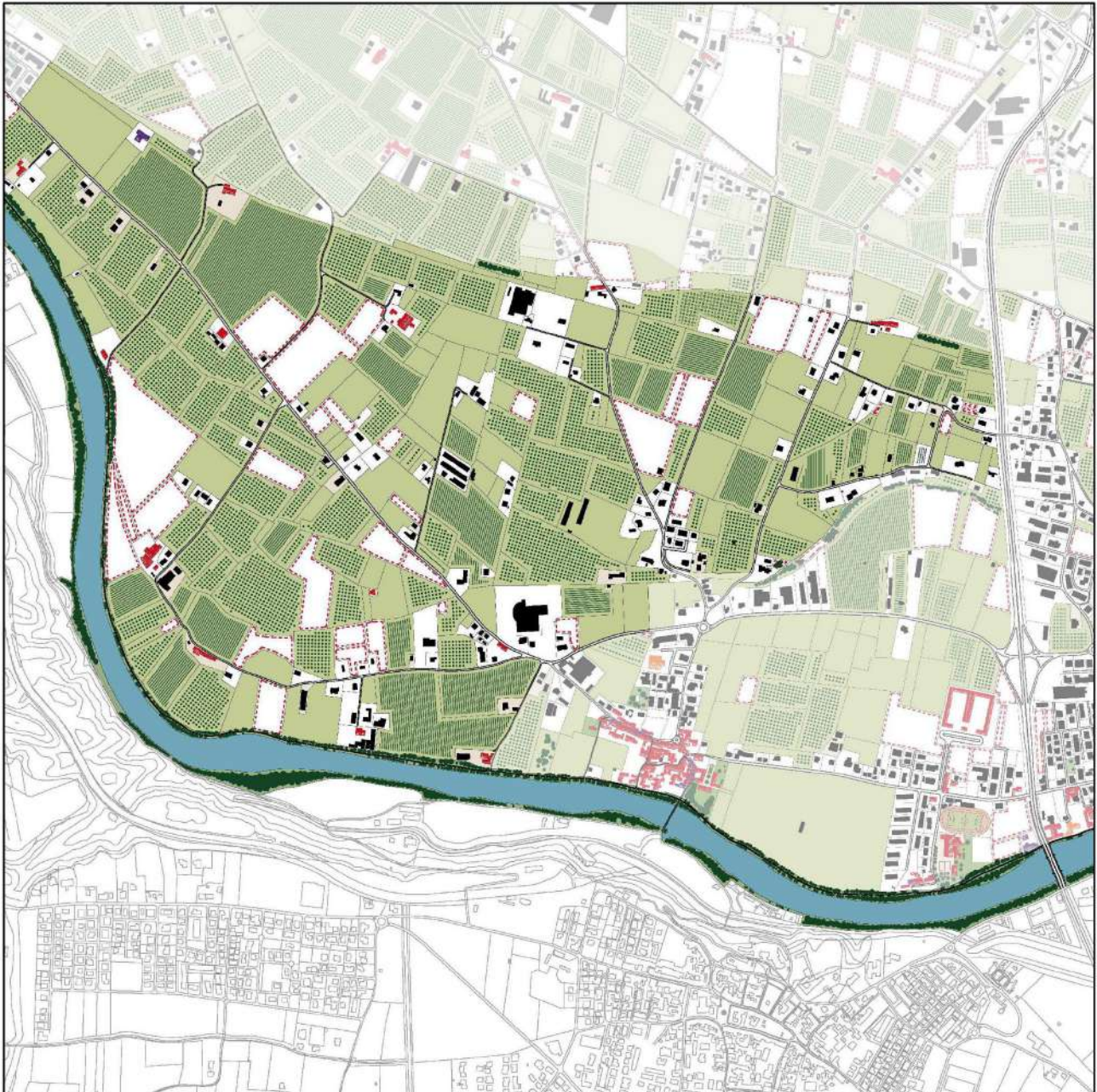
Figure 44. Project of the *bina I* (scale 1:22.000;
 original scale 1:5.000).



Figure 45. Sections of the *bina I* (scale 1:1.750;
original scale 1:400).



Figure 46. View of the *bina I* and the *quara III*.



 abandoned fields

Figure 47. Present situation of the *quara* I (scale 1:17.650; original scale 1:5.000).



 forests for biomass

Figure 48. Project of the *quara I* (scale 1:17.650; original scale 1:5.000).



Figure 49. View of the *bina I* and the *quara I*.

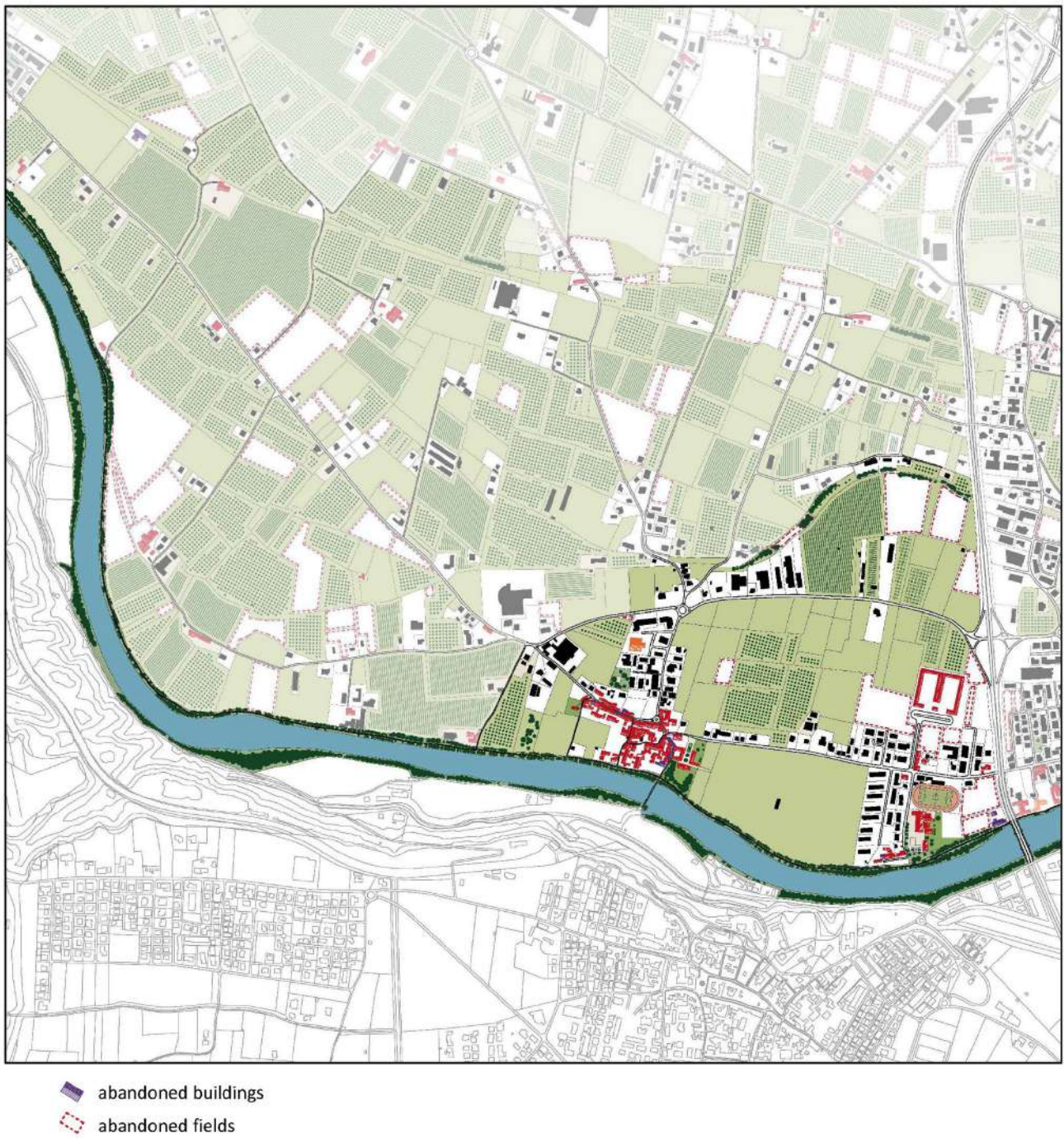
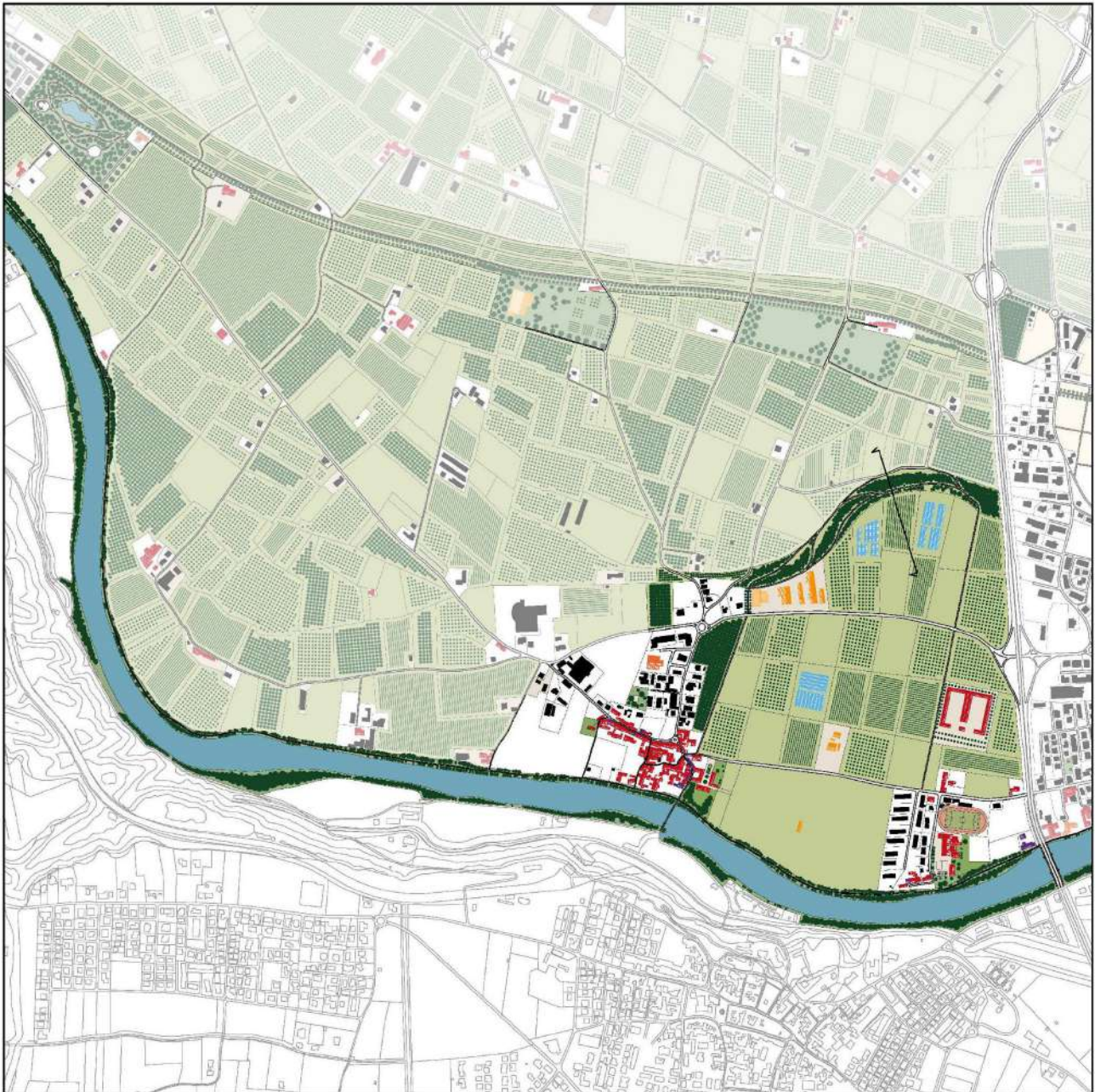
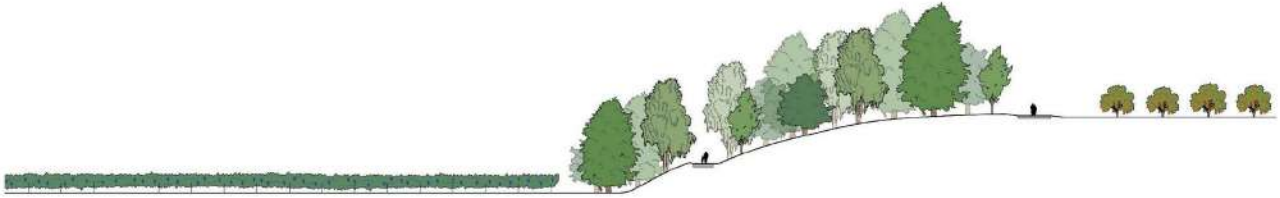


Figure 50. Present situation of the *bina II* and the *quara II* (scale 1:17.650; original scale 1:5.000).






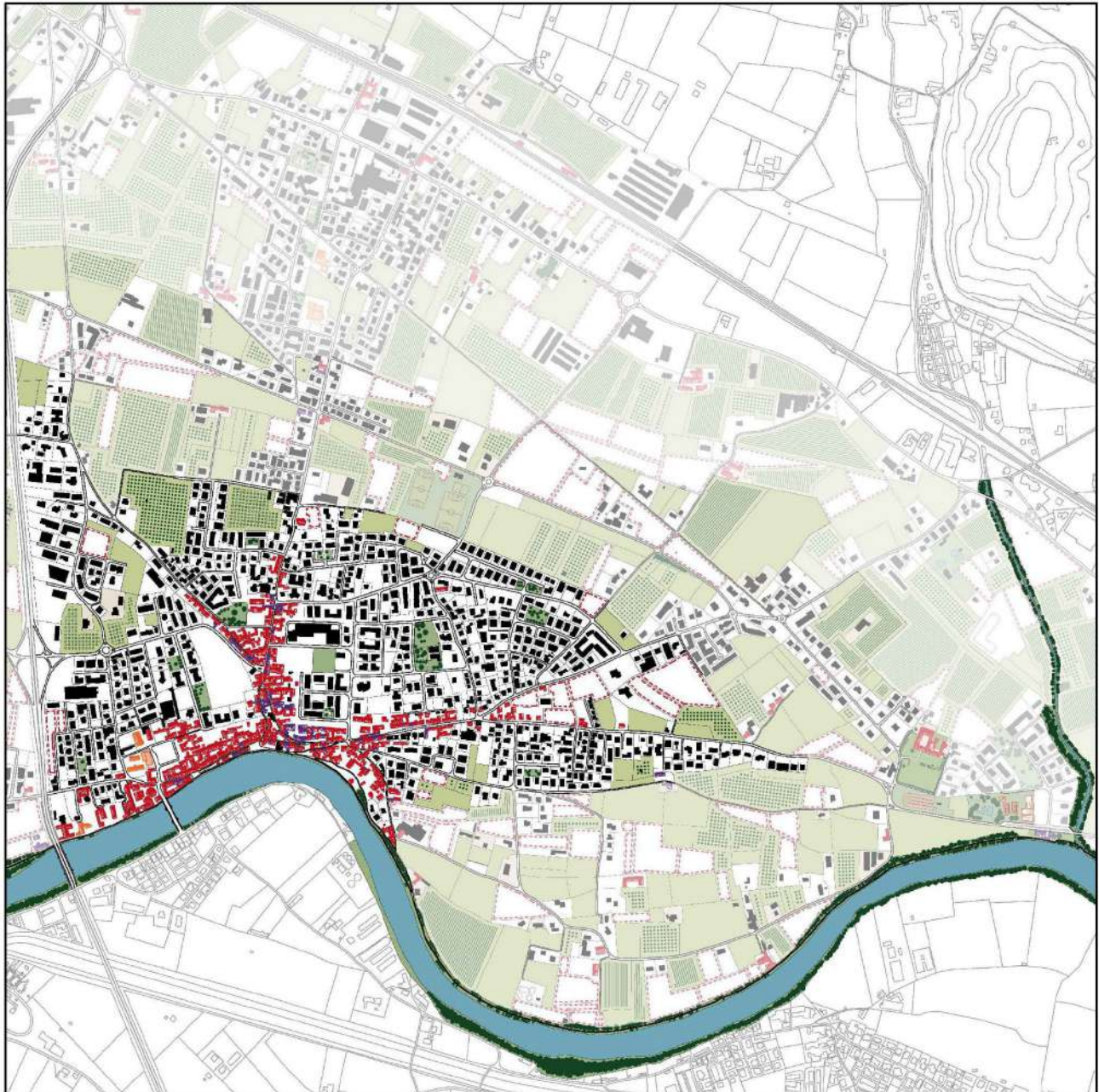
-  research center buildings
-  greenhouses
-  social housing

Figure 51. Project of the *bina II* and the *quara II* (scale 1:17.650; original scale 1:5.000). (Section scale 1:1.500; original scale 1:400)



Figure 52. View of the *bina II* and the *quara II*.



- schools
- abandoned buildings
- abandoned fields

Figure 53. Present situation of the *quara III* and the historical centre of Pescantina (scale 1:17.650; original scale 1:5.000).

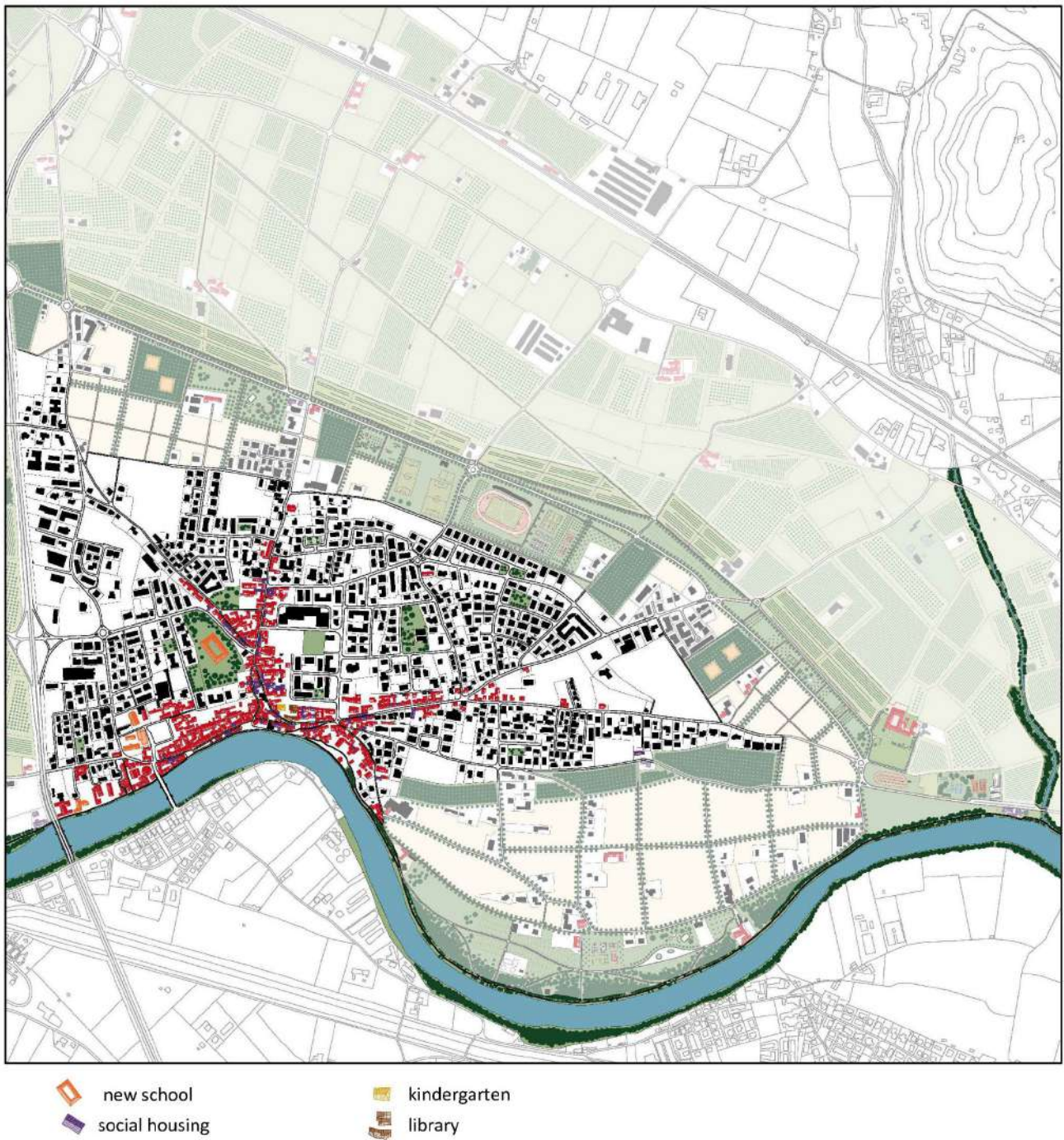


Figure 54. Project of the *quara III* and reuse of abandoned buildings in the historical centre of Pescantina (scale 1:17.650; original scale 1:5.000).

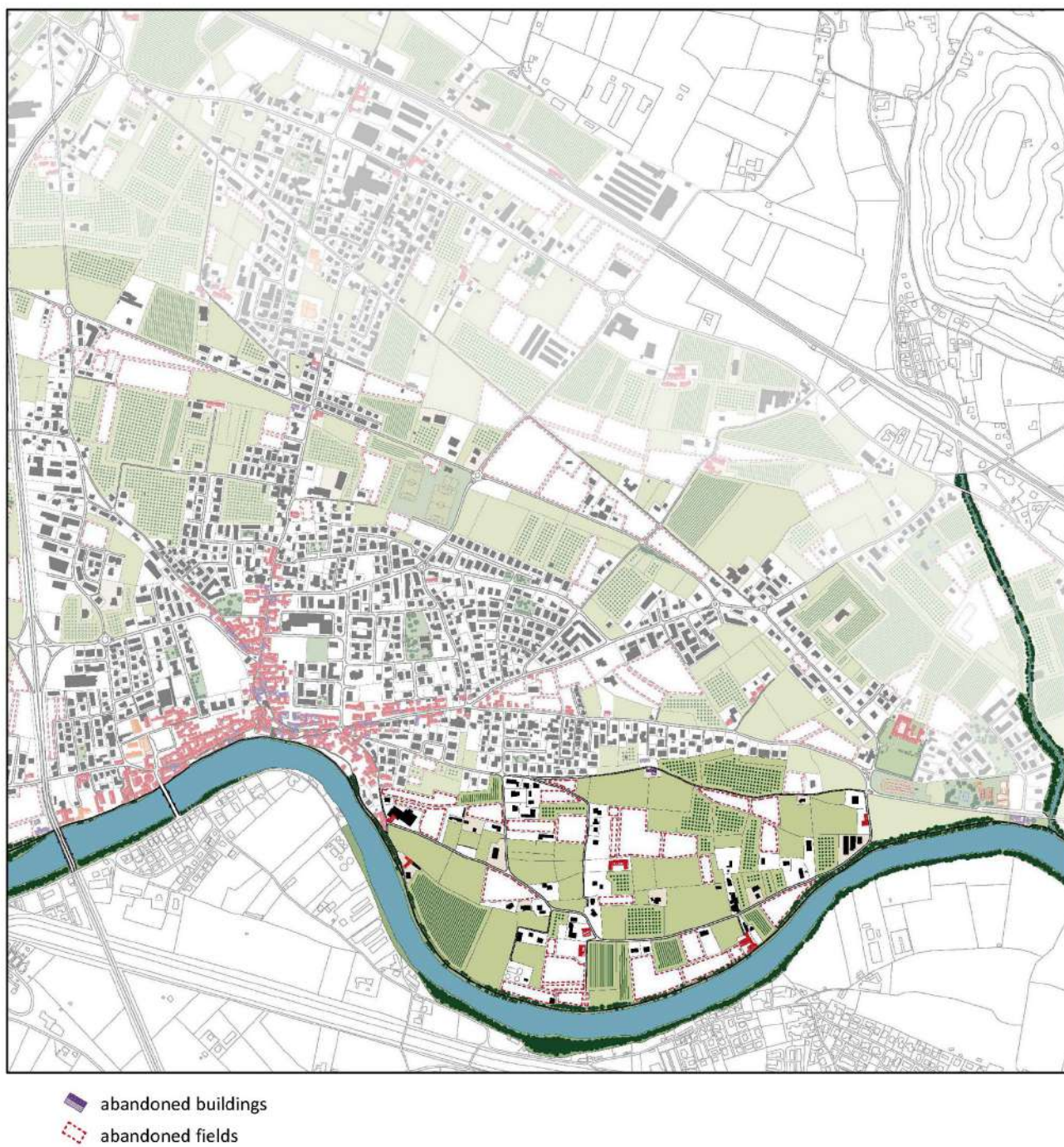
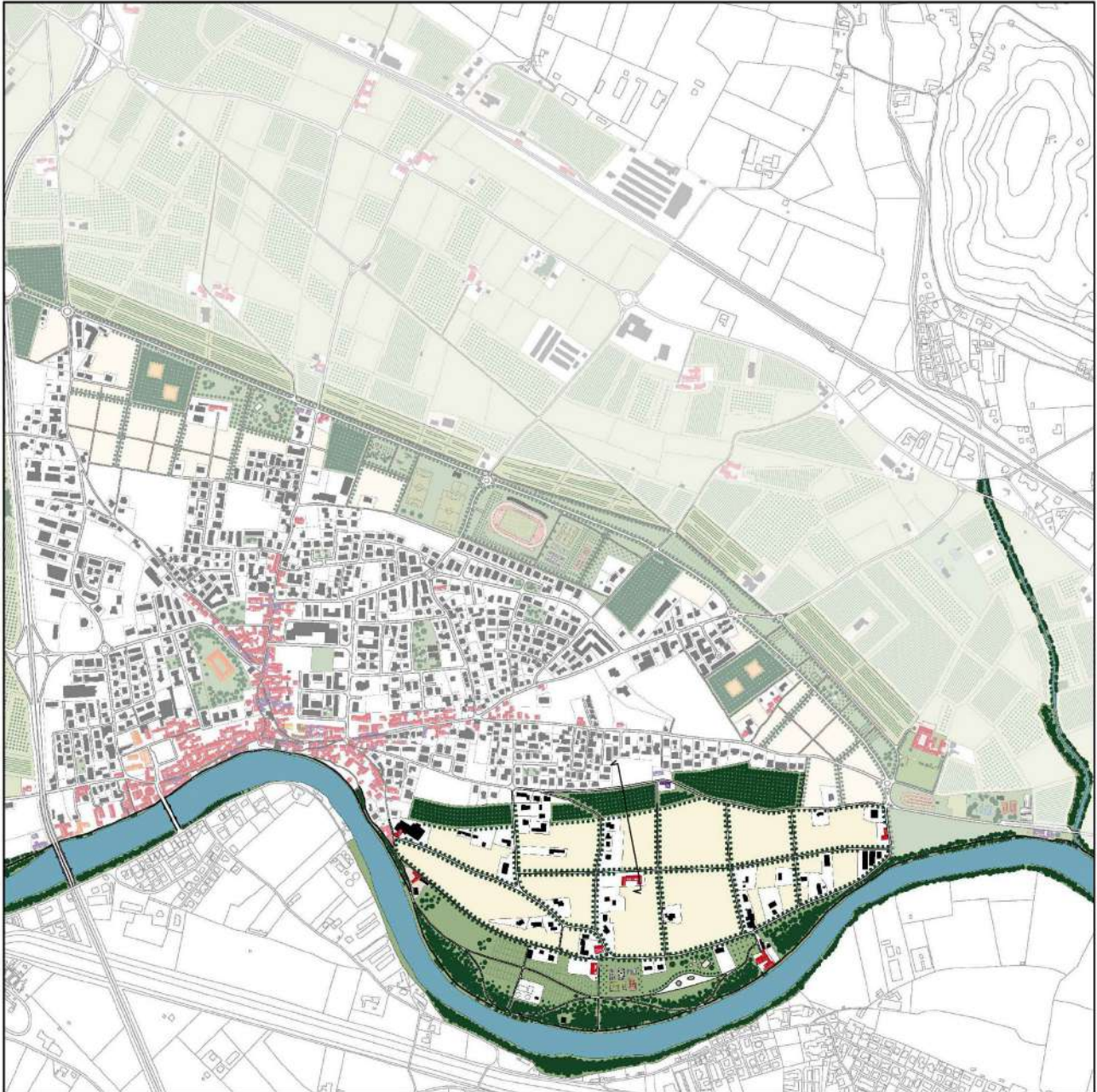
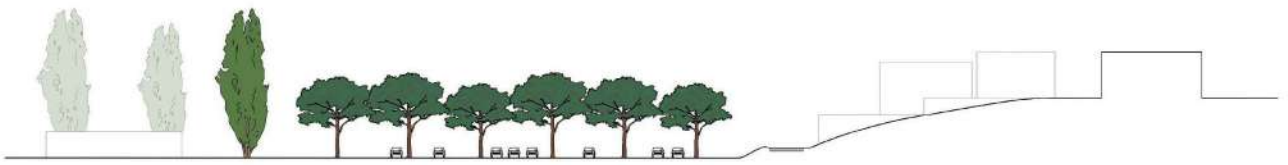


Figure 55. Present situation of the *bina III* and the *quara IV* (scale 1:17.650; original scale 1:5.000).





-  social housing
-  forested car parks

Figure 56. Project of the *bina III* and the *quara IV* (scale 1:17.650; original scale 1:5.000). (Section scale 1:1500; original scale 1:400)

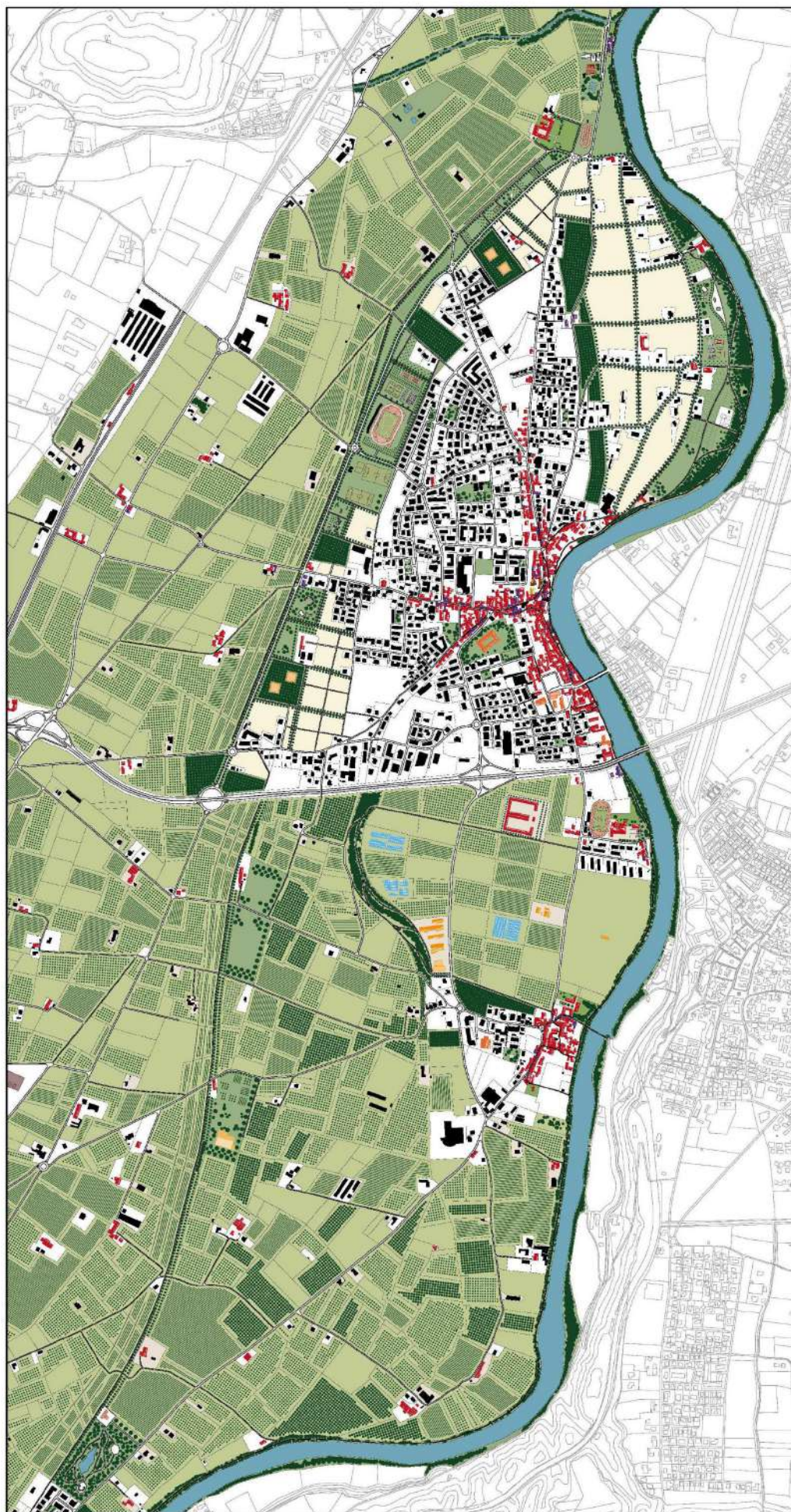
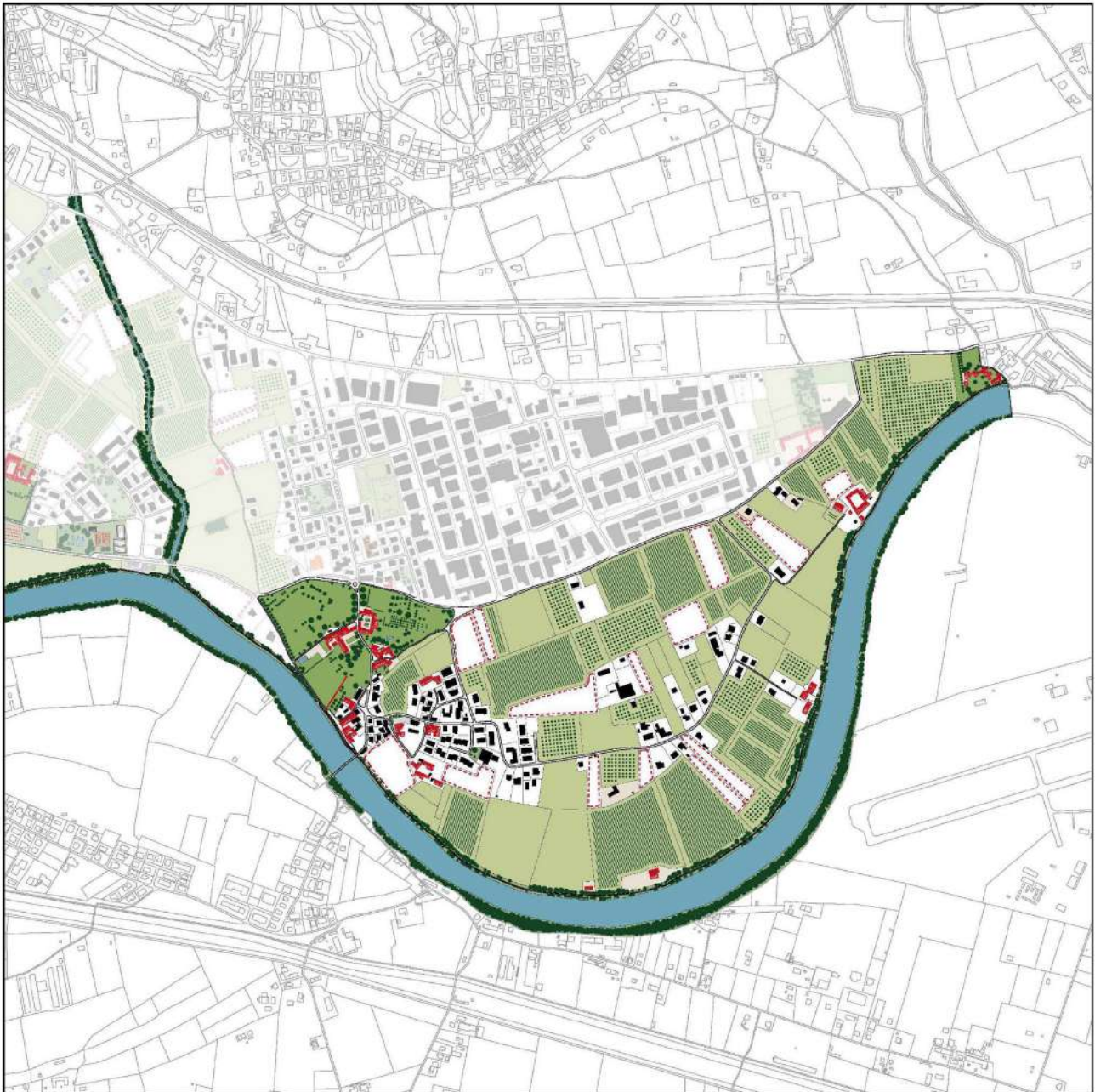


Figure 57. Plan of the project of the area under the *bina I* and the area outside the *bina I* (scale 1:22.000; original scale 1.5,000).



 abandoned fields

Figure 58. Present situation of the *bina IV* and the *quara V* (scale 1:17.650; original scale 1:5.000).

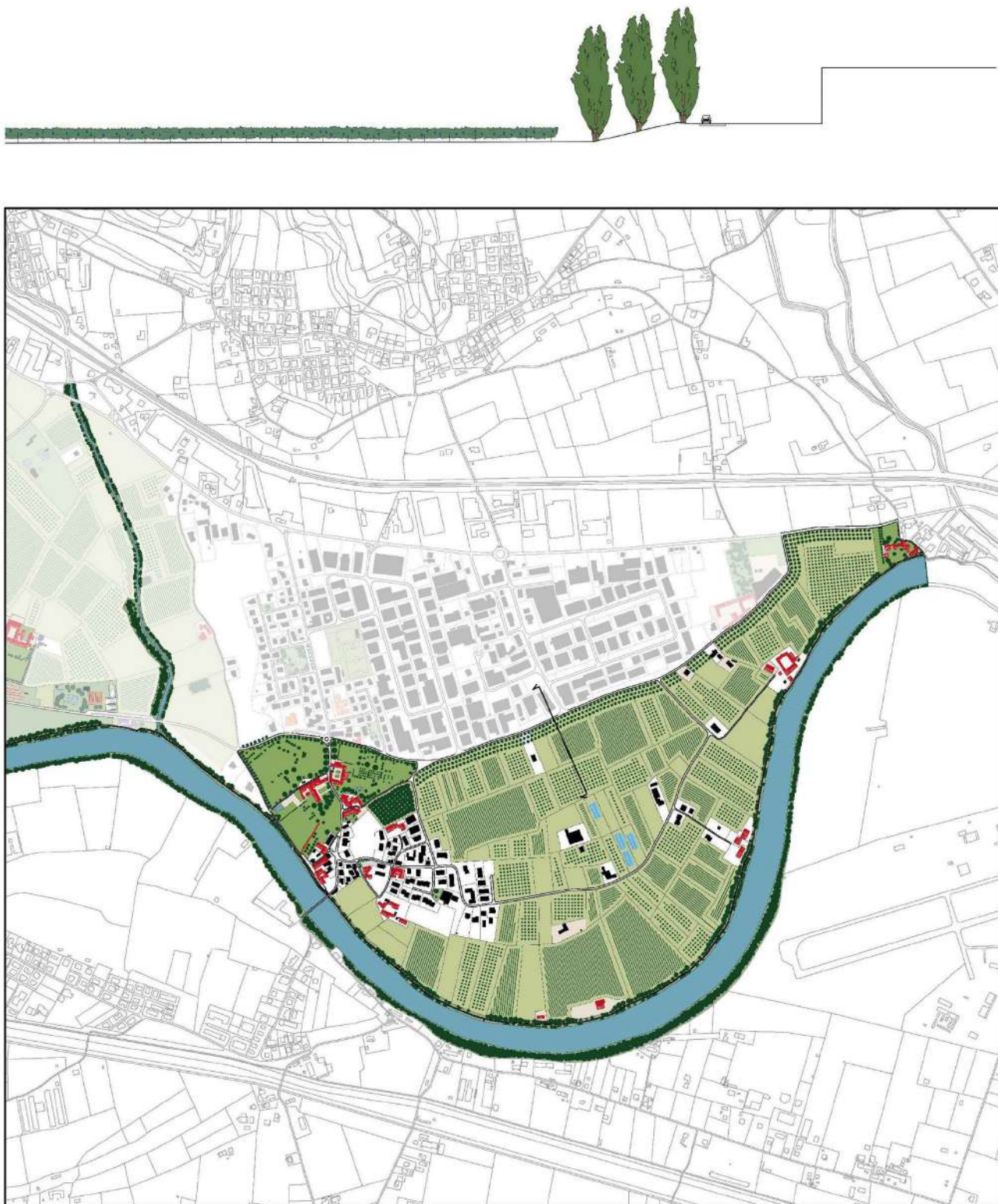


Figure 59. Project of the *bina IV* and the *quara V* (scale 1:17.650; original scale 1:5.000). (Section scale 1:1.500; original scale 1:400)



Figure 60. View of the *bina IV* and the *quara V*.

5. Conclusions

The project presented aims to address the critical issues facing the Municipality of Pescantina, themes shared by contemporary cities, i.e. urban sprawl, which tends to erase the differences between parts of the landscape, the abandonment of historical centres and the abandonment of the agricultural land. To this end, an approach was adopted that started from the recognition of the structure of the territory, working on it in order to restore recognisability to places, thinking of the landscape as a whole composed of distinct and recognisable parts, which nevertheless form it, giving a unified image. The territorial structure was therefore reinforced in order to work within distinct urban and agricultural areas with different functions, but at the same time connected and collaborating with each other. The aim was to achieve a holistic project, capable of bringing together issues related to the aesthetics of the landscape and functional issues. The problem of urban sprawl has been addressed by densifying the built-up area and mending the fragmentation of the agricultural fabric. The revitalisation of historical centres is being carried out by transforming abandoned buildings into social housing and accommodations for migrants. Finally, uncultivated fields are reused for biomass production, research and social initiatives. All this is done within an interconnected system of collaboration. The work has been done with a view to accommodate the signs of the territory, reinforcing them and at the same time making them elements of separation and union between the different parts, forming a single harmonious landscape composed of distinguishable parts.

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