



Cultural Heritage Counts for Parrano



André van Deursen
4008219 | 28-06-2018
Explore Lab 24

Tutors:
Ir. Robert Nottrot
Dott. Silvia Naldini
Ir. Jan van de Voort

Commissioner:
Ir. Daan Vitner



EXPLORE LAB #24

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FASCINATION

PRINCIPALITY FOR SALE

€14.000.000,-









‘[...] a time to tear down and a time to build, [...].’
(Ecclesiastes 3 : 3)

‘Er is [...] een tijd om af te breken en een tijd om op te bouwen.’
(Prediker 3 : 3)

‘[...] tempo di demolire, tempo di costruire’
(Qohèlet/Ecclesiaste 3 : 3)



Landlord, Fattore and Mezzadri



Typical view of the Tuscan countryside as a result of the new agricultural cooperatives



Sellano, ghost village in Umbria with only 2 inhabitants in 2017

PROBLEM STATEMENT

Agricultural vacancy in Central Italy

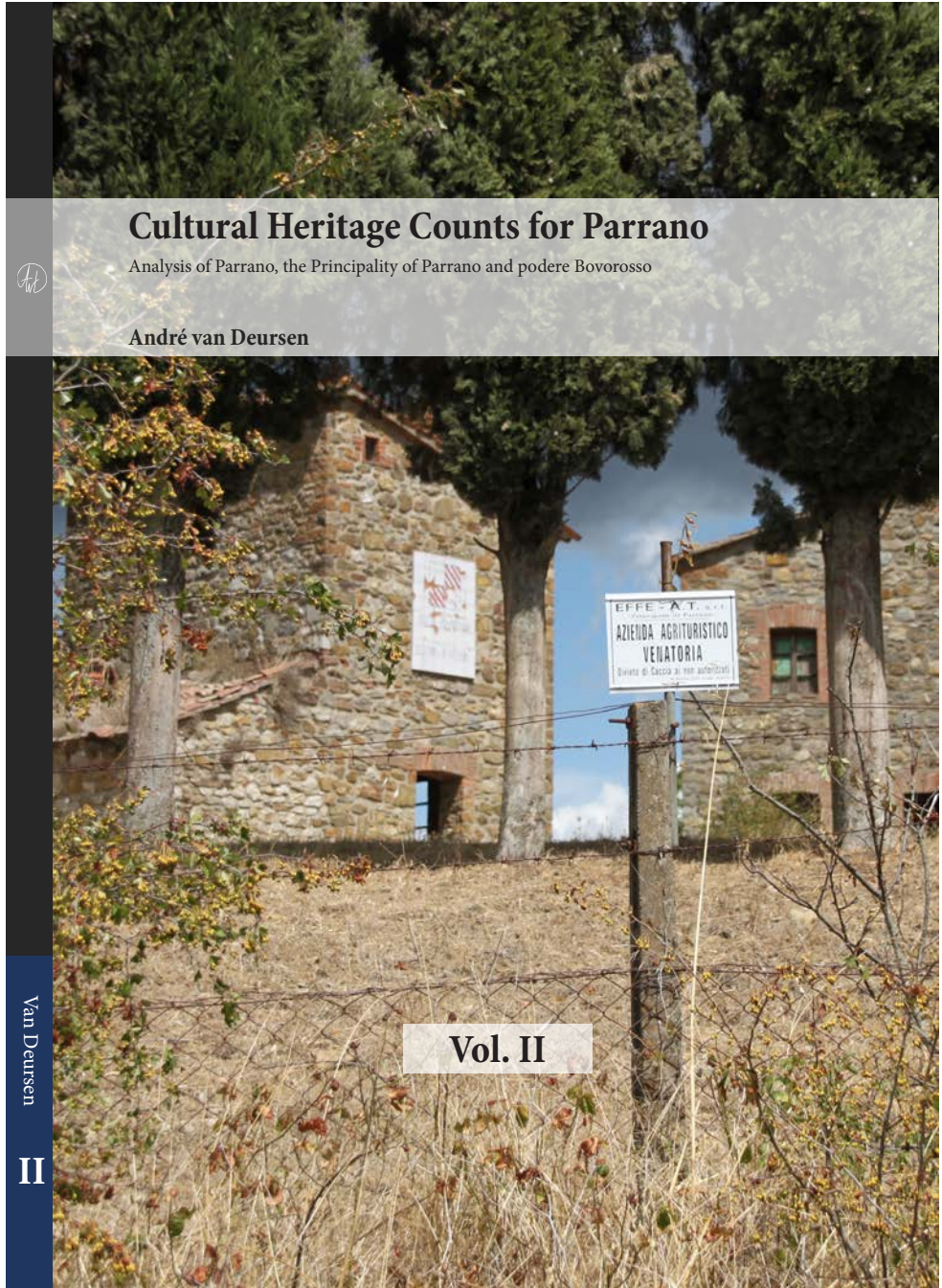
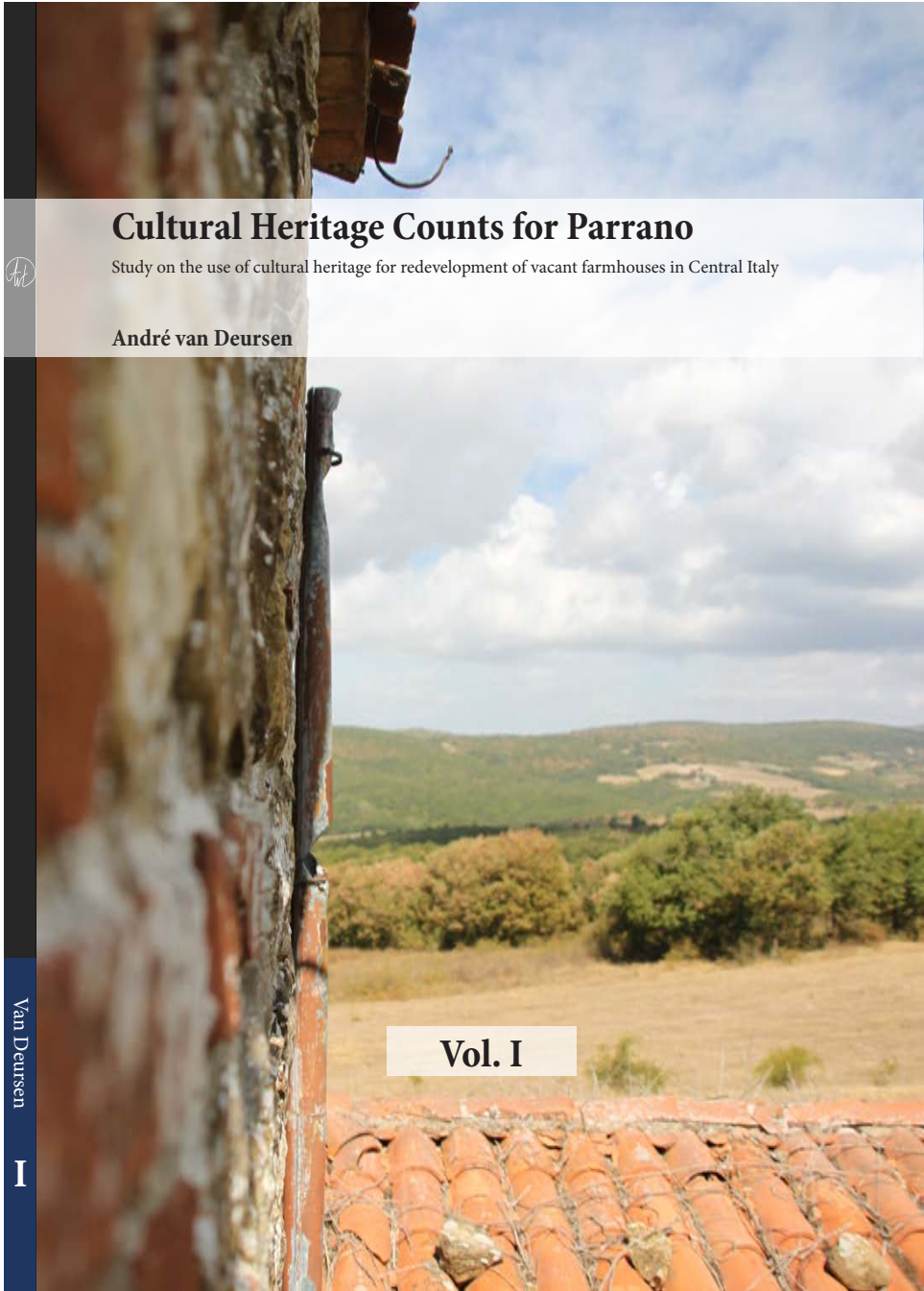
RESEARCH QUESTION

“In what ways can the study of cultural heritage be of advantage for redeveloping vacant farmhouses in central Italy?”

“A sustainable development plan for the Principality of Parrano, laborated in a new design for Podere Bovorosso, as an example how to deal with agricultural vacancy in Central Italy”

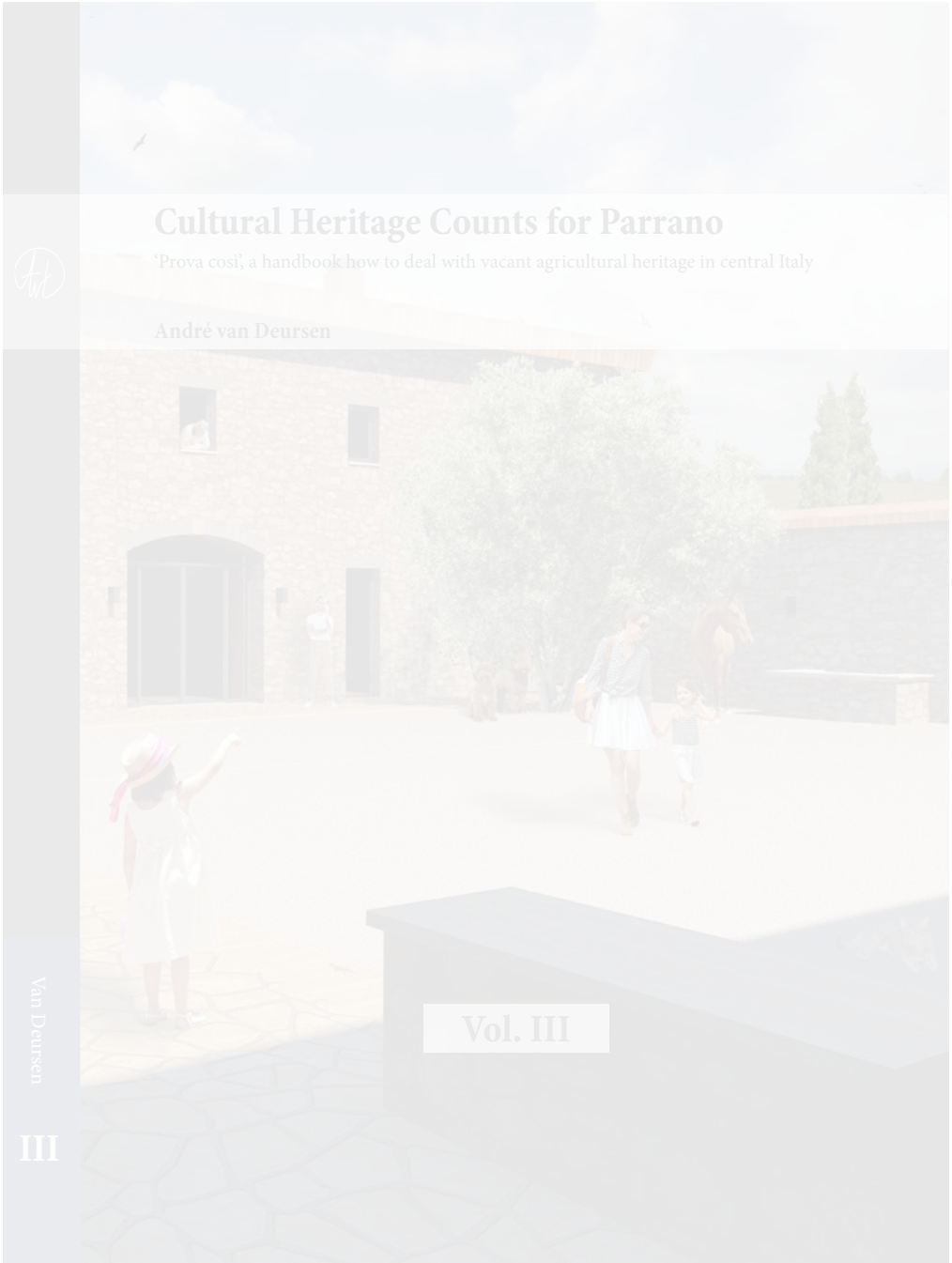
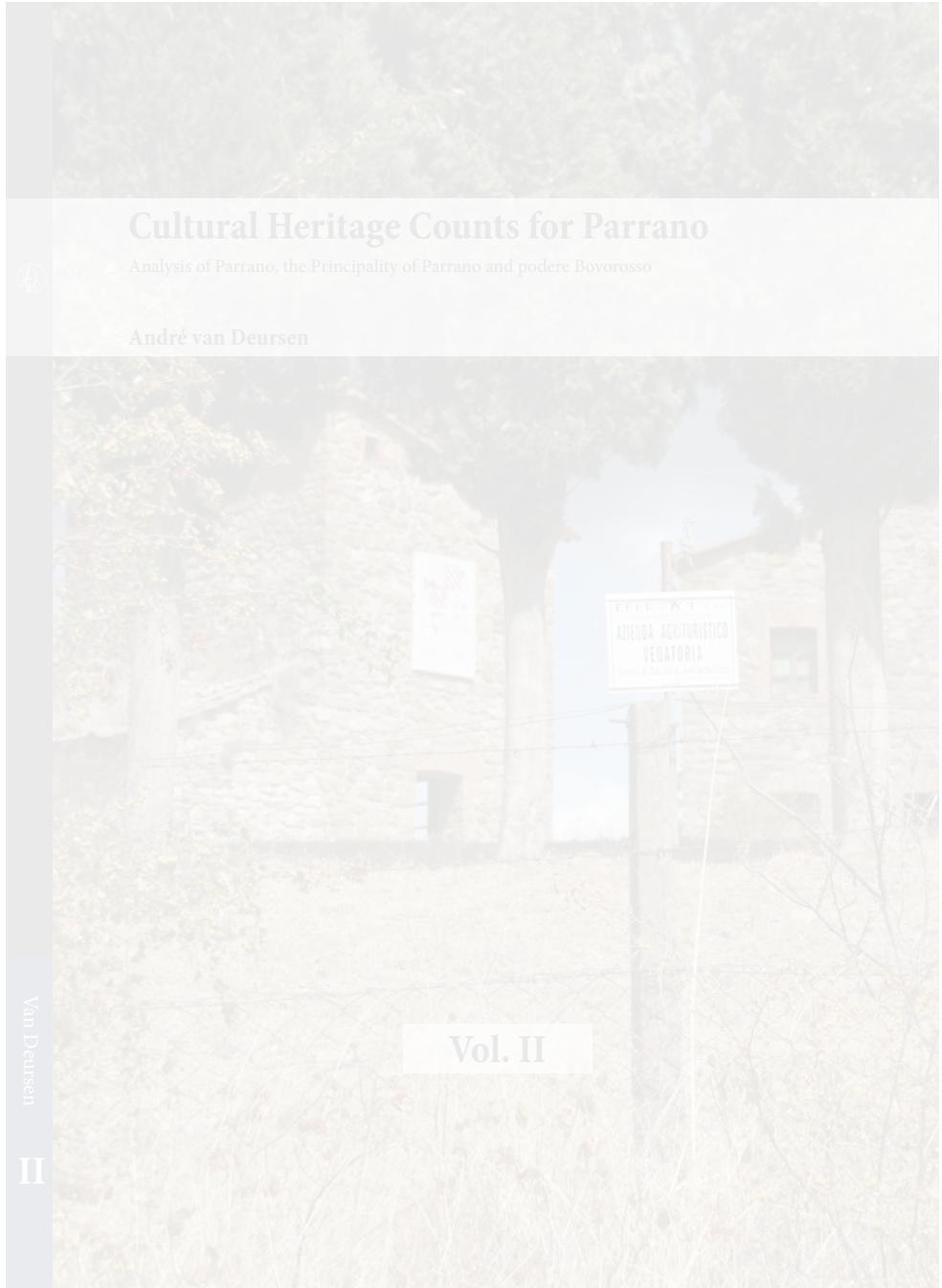
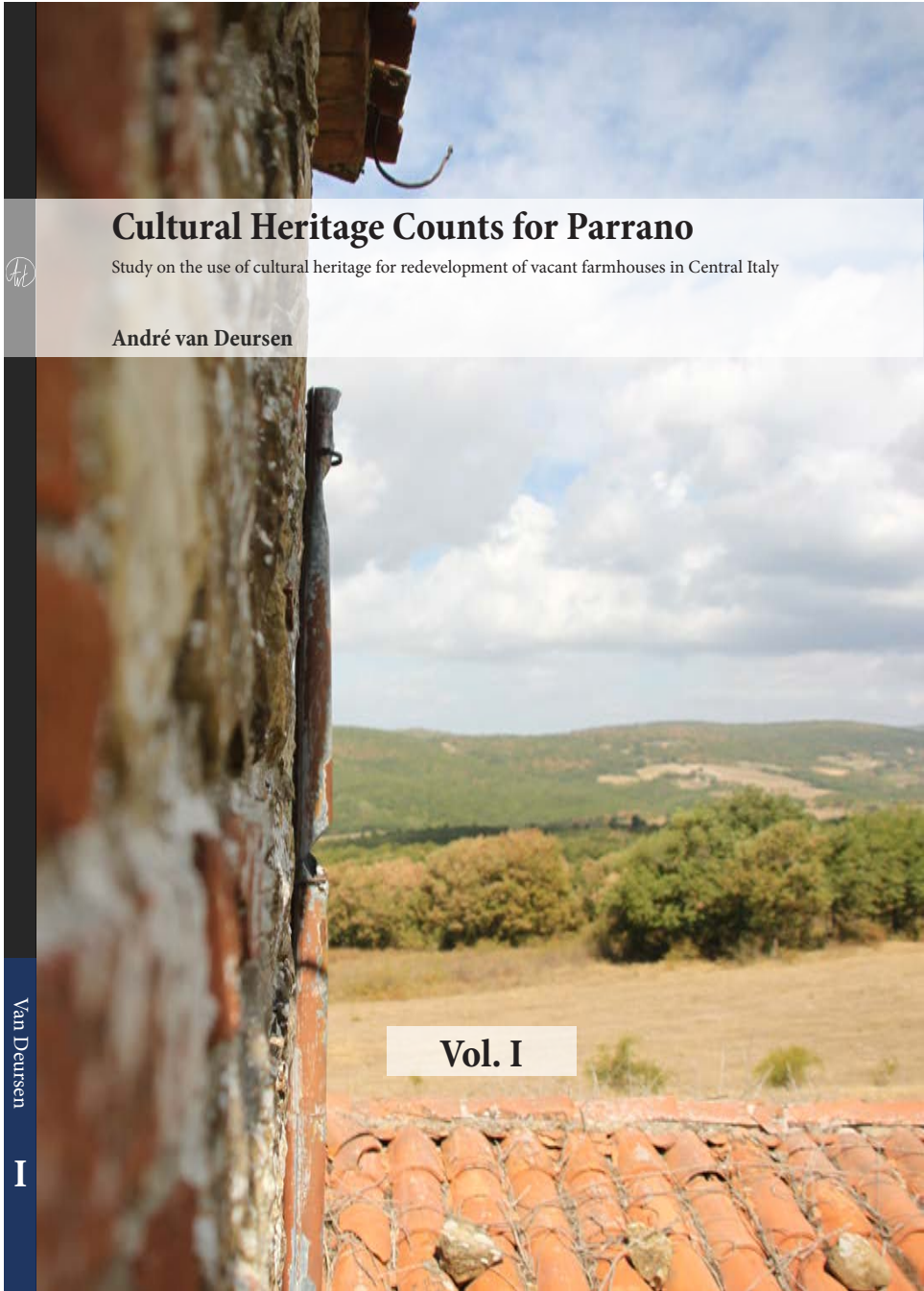
GRADUATION PROJECT

RESEARCH, ANALYSIS, DESIGN



“In what ways can the study of cultural heritage be of advantage for redeveloping vacant farmhouses in central Italy?”

RESEARCH



RESEARCH

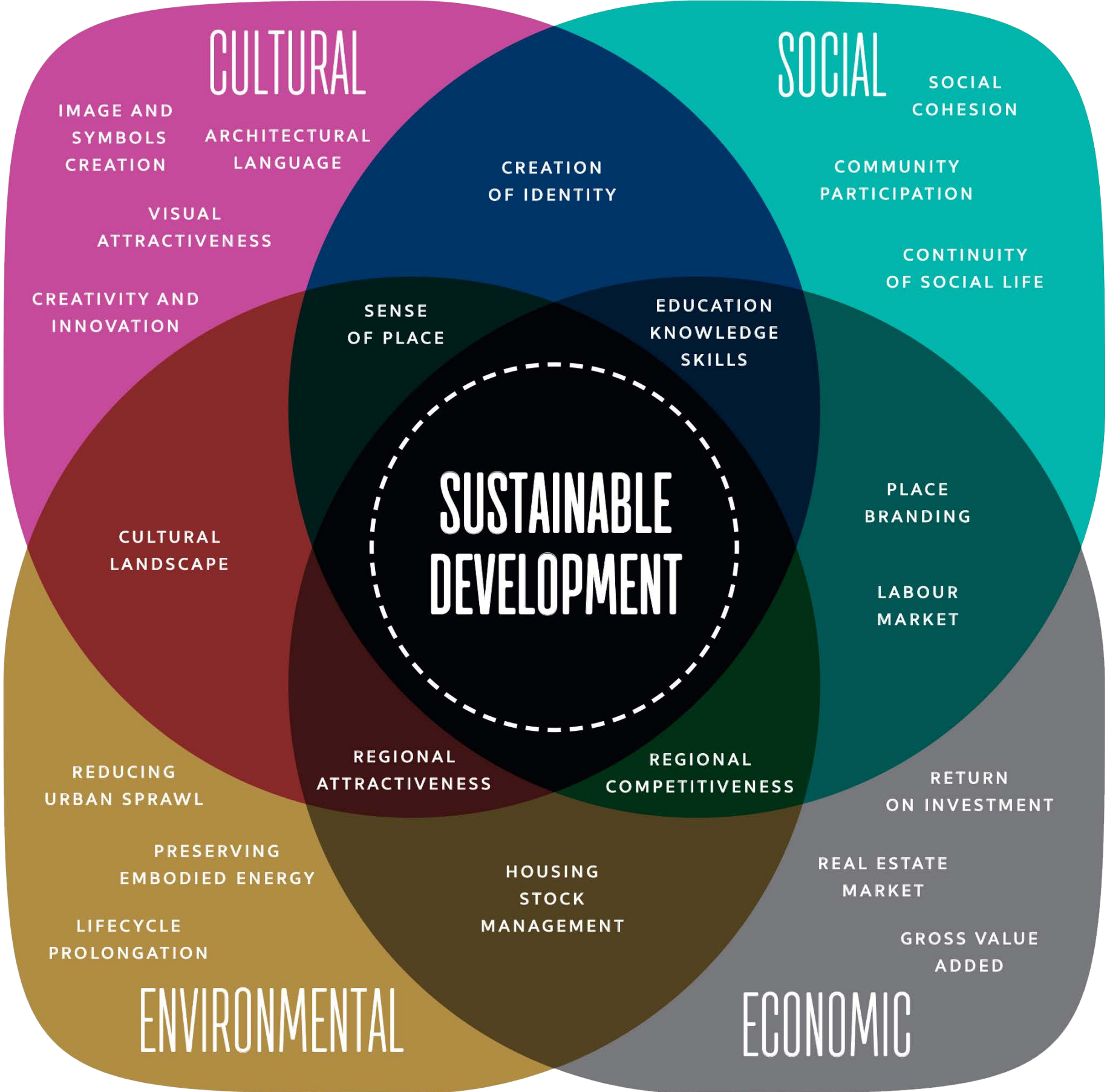
TYPOLOGIES AND CATEGORIES OF CULTURAL HERITAGE

| Reigle (1902) | Lipe (1984) | Frey (1997) | English Heritage (1997) | Burra Charter (1998) | Cultural Heritage Counts for Europe (2015) |
|----------------------|----------------------|--------------------|--------------------------------|---|---|
| Age | Economy | Monetary | Cultural | Aesthetic | Cultural |
| Historical | Aesthetic | Option | Educational and Academic | Historic | Economic |
| Commemorative | Associative-symbolic | Existence | Economic | Scientific | Environmental |
| Use | Informational | Bequest | Resource | Social (including spiritual, political, national, other cultural) | Social |
| Newness | | Prestige | Recreational | | |
| | | Educational | Aesthetic | | |

Summery of heritage value typology and categories, based on Mason (2002).

RESEARCH

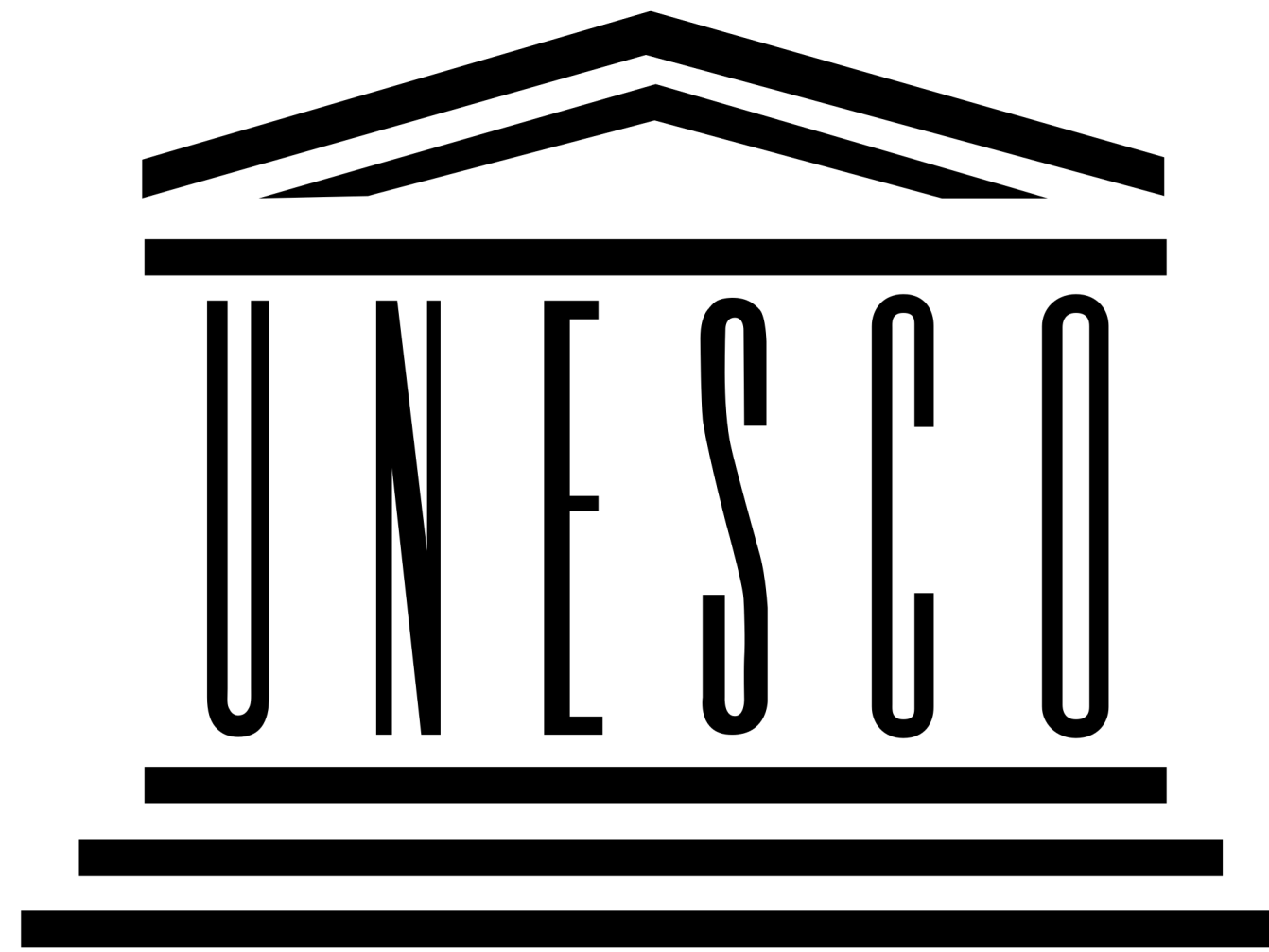
SUSTAINABLE DEVELOPMENT KEYS



*Cultural Heritage Counts for Europe (CHCFE), (2015),
The different subdomains for a sustainable development of cultural heritage.*

RESEARCH

PASSIVE VERSUS ACTIVE

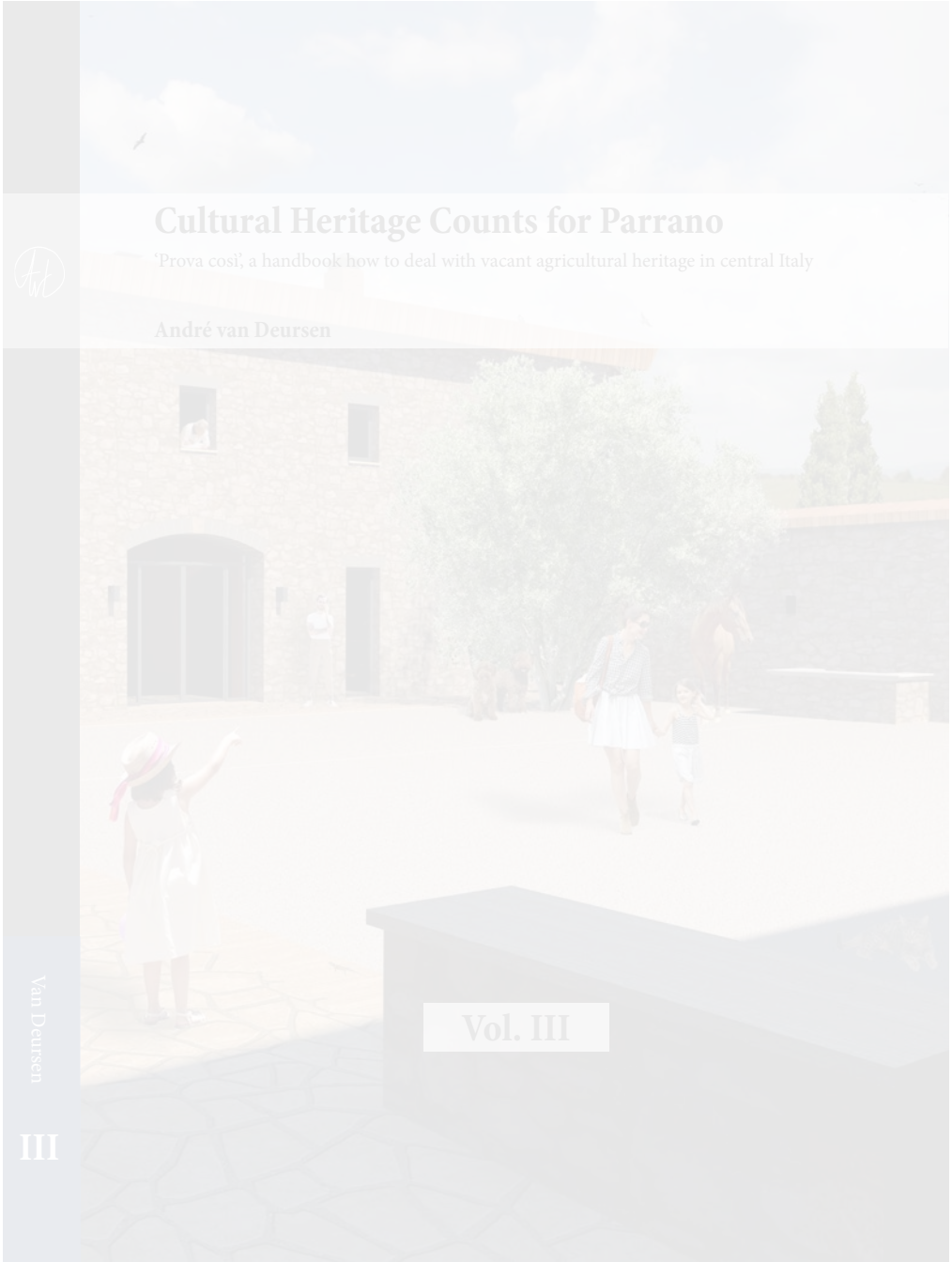
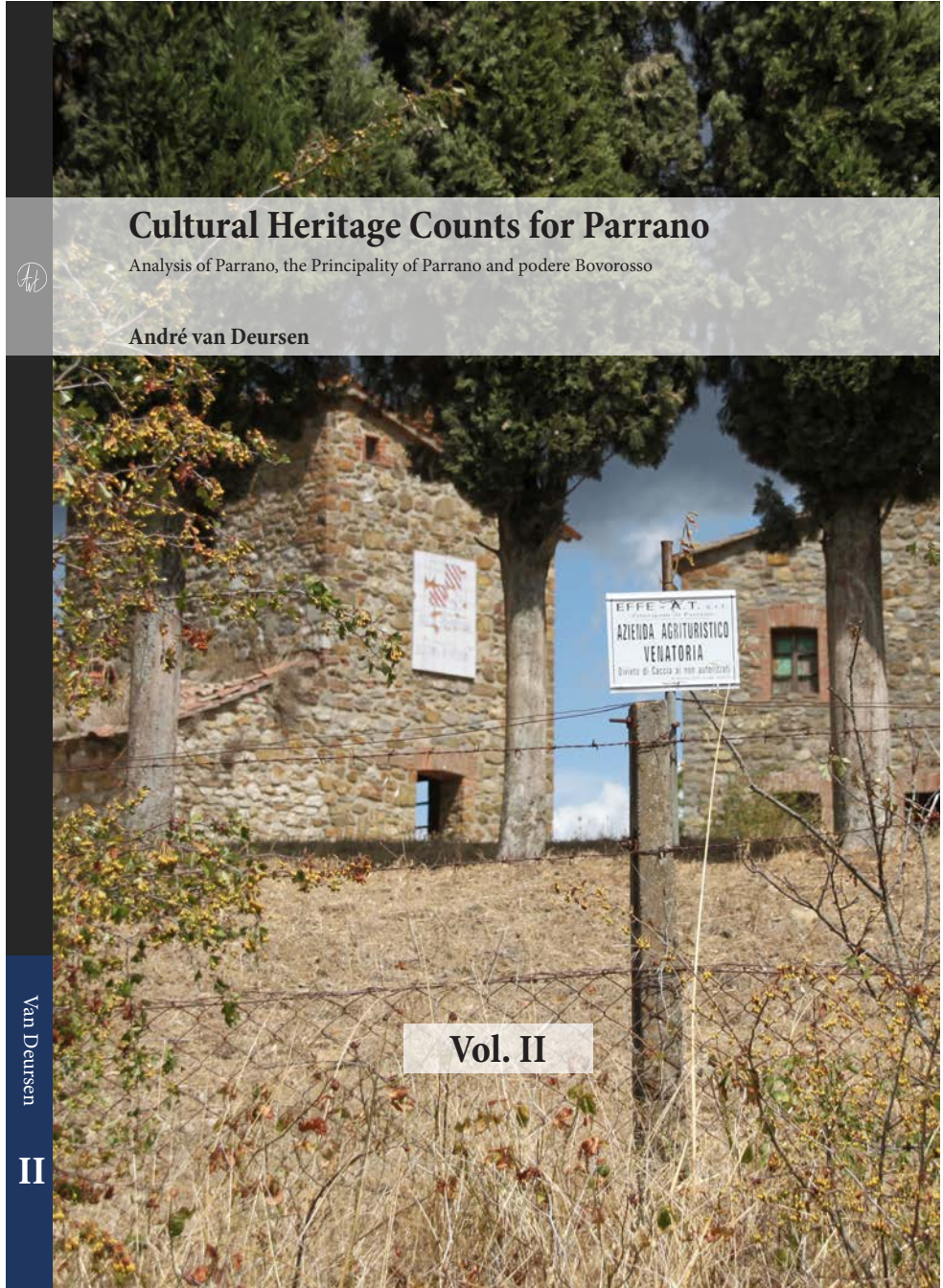
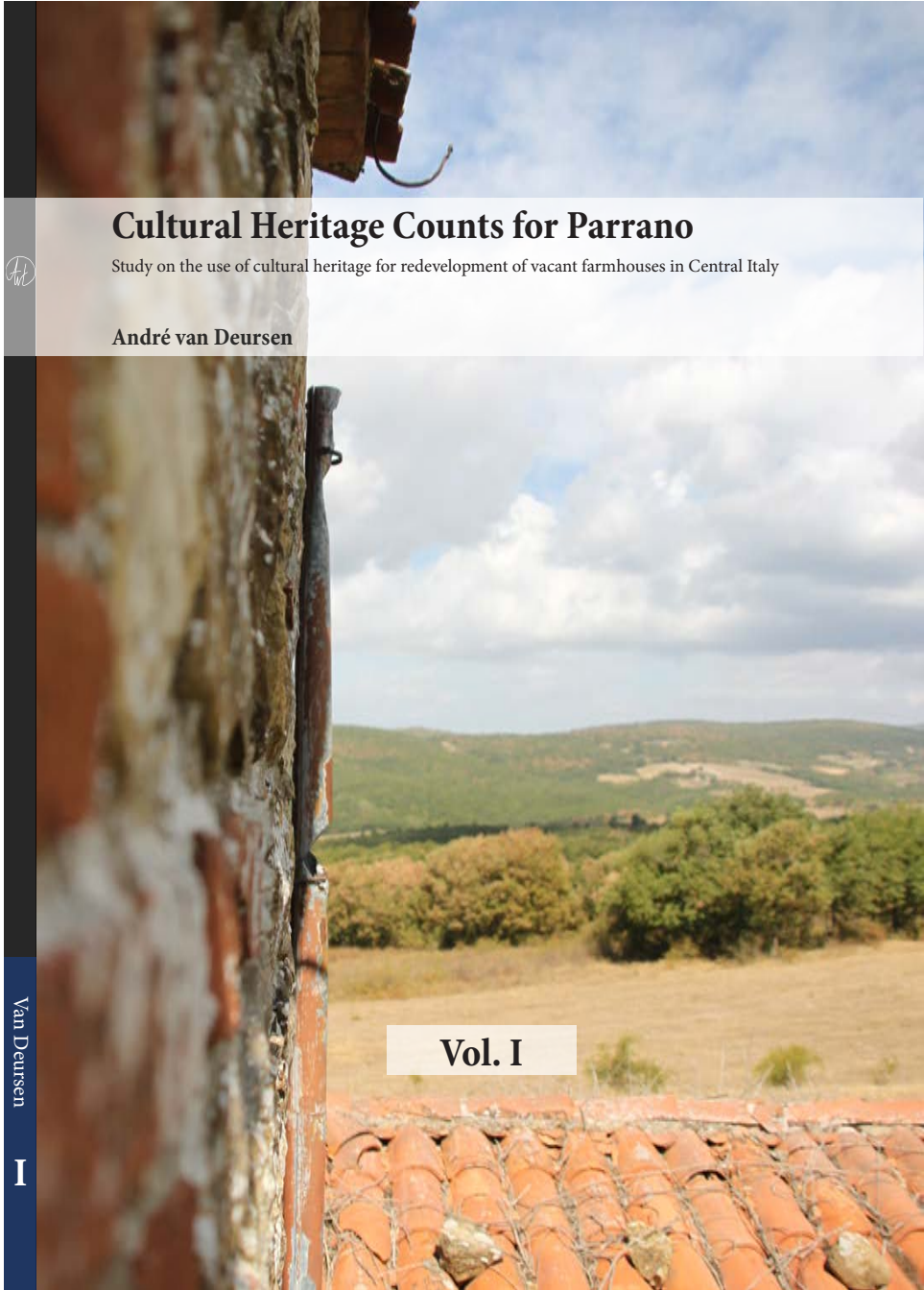


*worldwide
preventive
protective
passive*



*European Union
research and study of potential (like CHCfE)
reuse
active*

RESEARCH & ANALYSIS



RESEARCH & ANALYSIS

MEZZADRIA

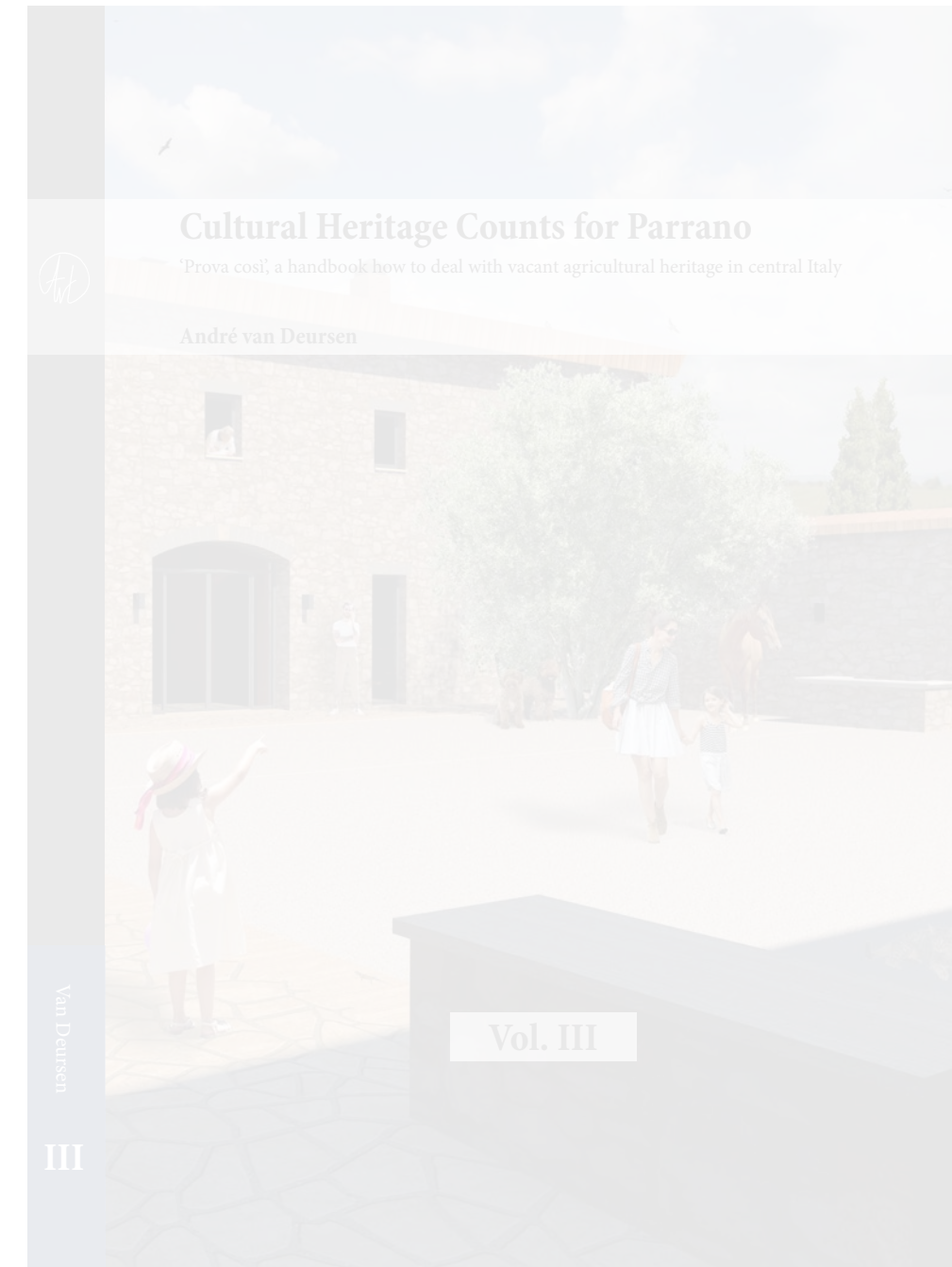
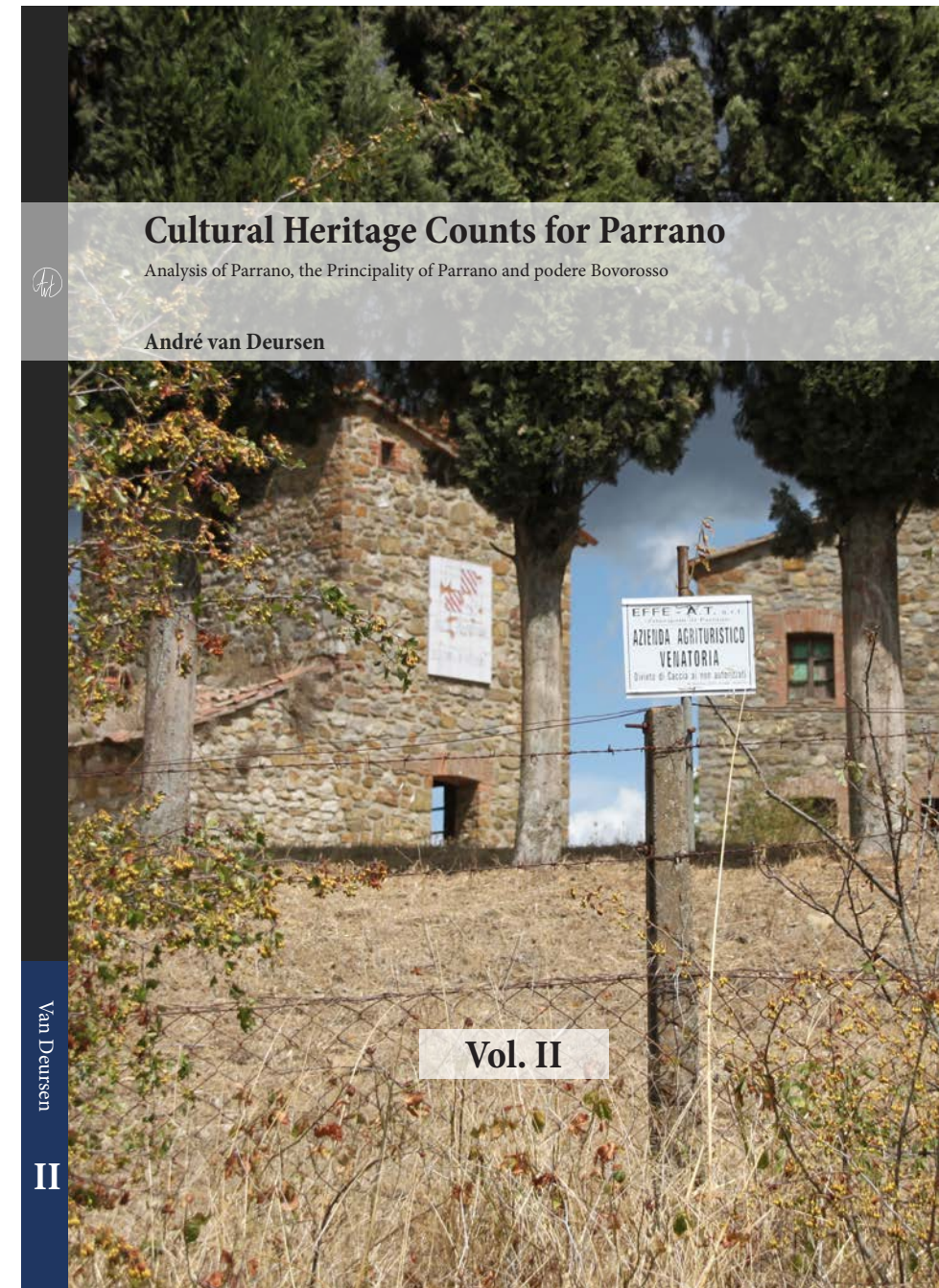
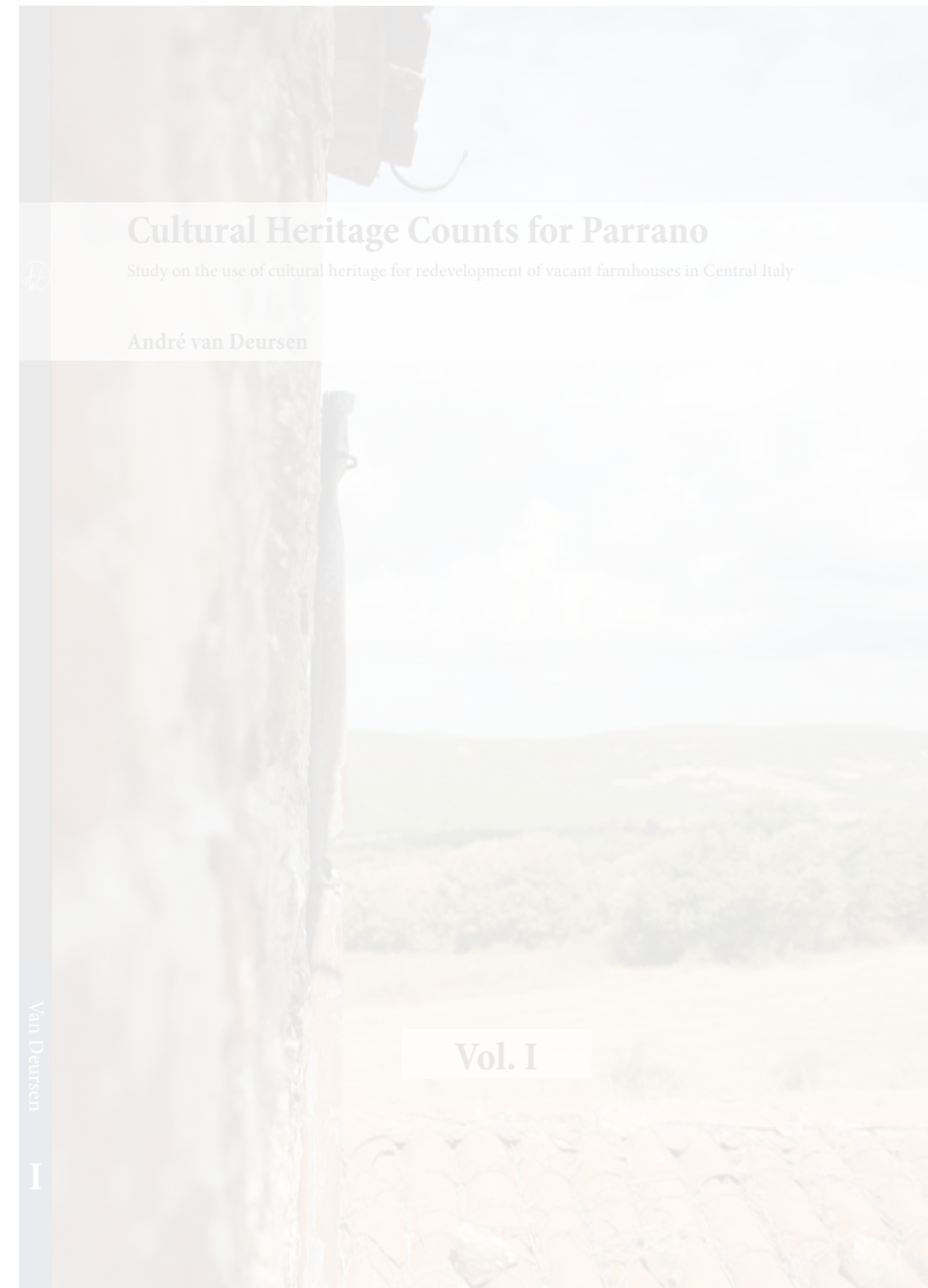


RESEARCH & ANALYSIS

MEZZADRIA



ANALYSIS



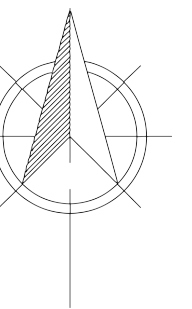
ANALYSIS

UMBRIA IN ITALY



Umbria:

- *province of Terni*
- *province of Perugia*



ANALYSIS

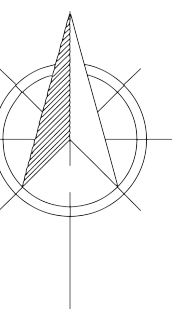
PARRANO IN TERNI



Terni:

- *Municipality of Parrano*

- *surrounded by Montegabbione, Fabro,
Ficulle*

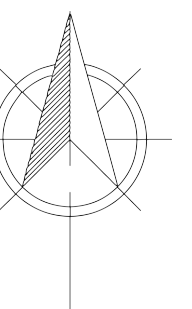


ANALYSIS

PARRANO



Parrano: 40,1 km²
Principato di Parrano: 15,6 km²
Frazioni: Cantone, Pievelunga,
Frattaguida

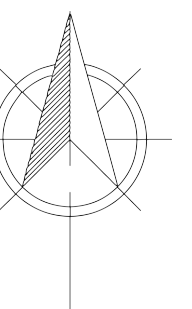


ANALYSIS

PODERE BOVOROSSO



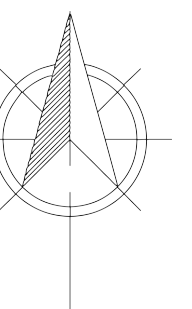
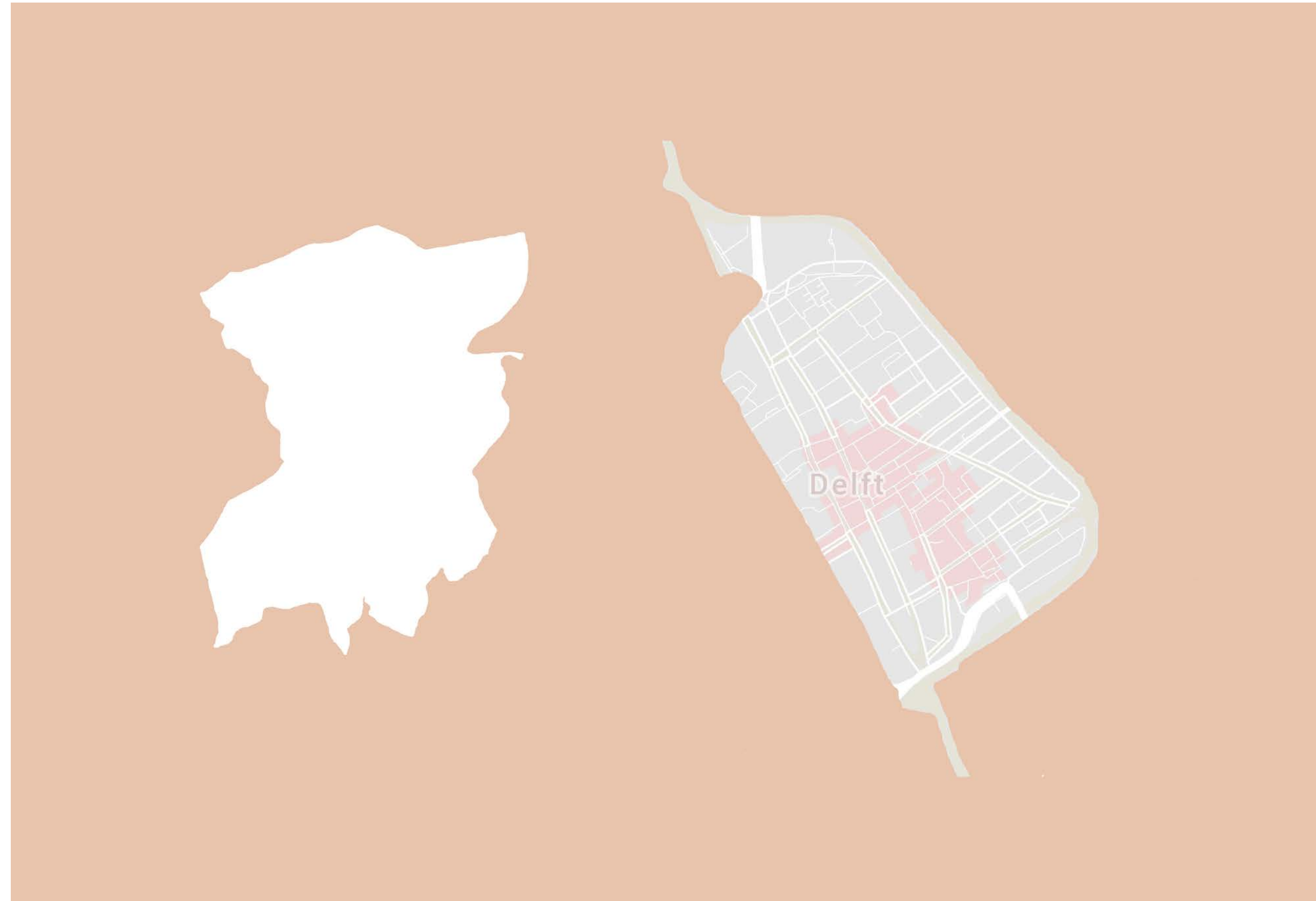
*Podere Bovorosso: 190 hectares
primary and secondary (forest) land*



ANALYSIS

PLOT SIZE

Main part of Podere Bovorosso is comparable with the city center of Delft



ANALYSIS

IMPORTANT HISTORICAL FIGURE



FIAT CEO Vittorio Valletta (center)

*owner Principality of Parrano:
1960-1967*

ANALYSIS

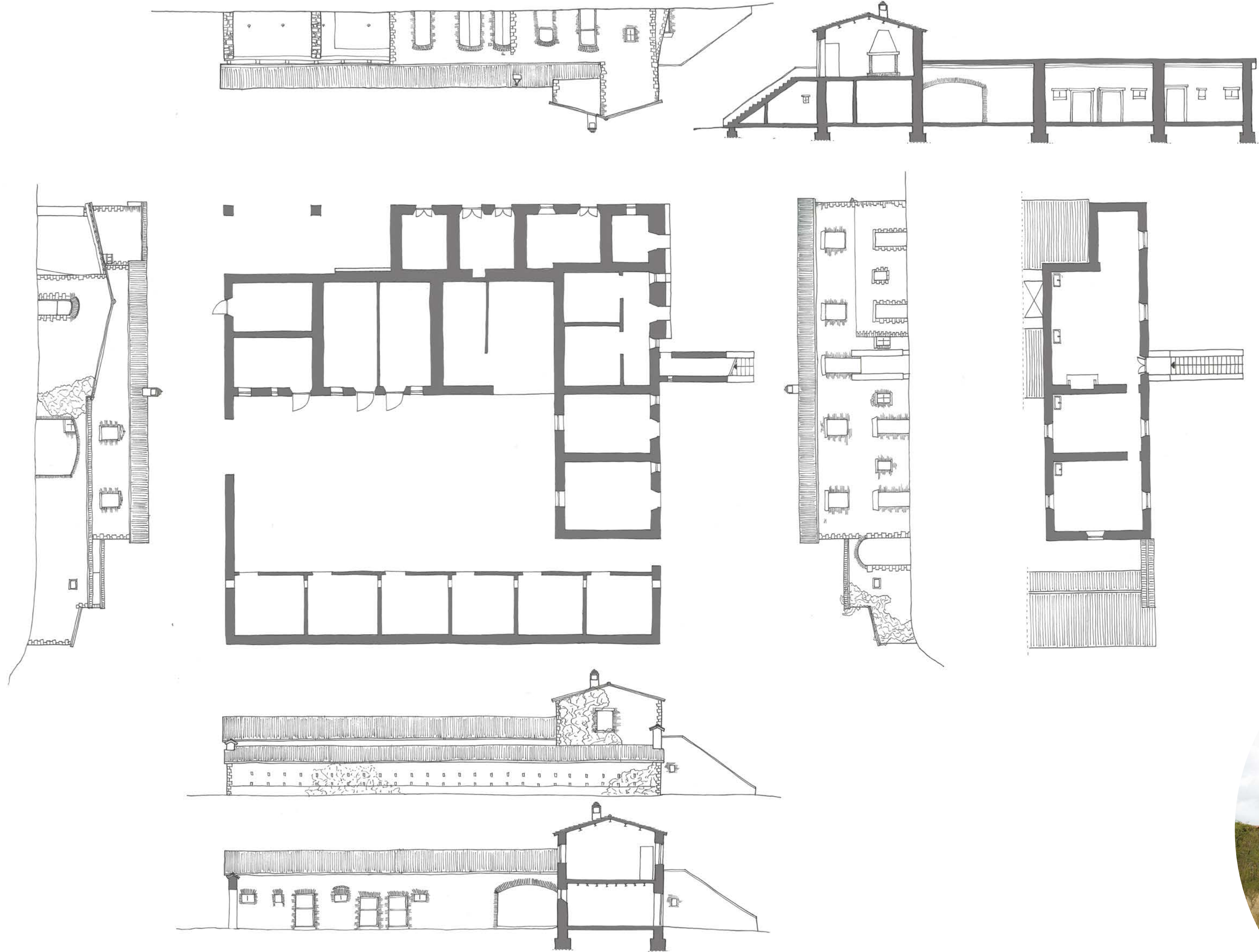
HERITAGE VALUE MATRIX

| Heritage Value Matrix ▲ high value ▲ average value ▲ low value | AGE VALUE | HISTORICAL VALUE | ARTISTIC VALUE | COMMEMORATIVE VALUE | USE VALUE | NEWNESS VALUE | CONFLICT VALUE | NOSTALGIC VALUE |
|---|--|--|---|---|---|---|--|---|
| SURROUNDINGS | the past has left its traces in the surroundings: - cypresses ▲ - dry stone walls ▲ A.1 | sharecropping and self-sufficiency influenced the structure of the surrounding lands, division of land, scattered buildings, use of the land ▲ A.2 | hand-build dry stone walls, iconic hillside view of central Italy, postcard panorama ▲ A.3 | agricultural landmarks representation of the former agricultural practice ▲ A.4 | a vast territory of land is part of the farm, can be used for many purposes ▲ A.5 | surroundings are still in use as meadow without functional use of the farm -> new use ▲ A.6 | every farm was independent as organization but suppressed by landlord in the village ▲ A.7 | sloping hills, scattered farms, wildlife and nature. In search of the past (in general) ▲ A.8 |
| STORY | residual stories are scarce -> specifically for the twentieth century heyday. Information of the farm is mainly from the second half of the twentieth century ▲ B.1 | Mezzadria was an agricultural practice that became part of the Italian culture because of the longstanding use and great impact which is also embedded in the history of Parrano and visible in podere Bovorosso ▲ B.2 | farmers built almost everything themselves and many products were homemade; from clothing to honey and grappa, but also ceramic decorations like the tableau at podere Bovorosso are artistic storytellers ▲ B.3 | the history of the principality is part of the local heritage all inhabitants consider the local history as heritage ▲ B.4 | history of the place inspires for many new functions and use based on culture and heritage ▲ B.5 | story of podere Bovorosso ends in 1960's, latest owner did not do anything with the farm ▲ B.6 | mezzadria practice disappeared gradually; new contracts could not be made anymore since 1964 and the practice became illegal in 1982. ▲ B.7 | nobody wants to return to the times of the mezzadria but do want the return of the heyday in the Italian countryside ▲ B.8 |
| SITE | features of the region like existing greenery but also erosion of walls, soil and roads as well as the contrast between cultivated and non-cultivated land ▲ C.1 | traditional fencing to separate the surrounding land from the property of the farm, dry stone walls to create terraces ▲ C.2 | - panorama hillside position - decorations attached to walls are visible by entrance of the property ▲ C.3 | widespread local knowledge of the farm, the estate, and the former owners ▲ C.4 | hill has low sloping angles around complex and even equal level grounds. former use as hunting farm company, berry bushes on site ▲ C.5 | the site is nowadays used for cows and donkeys to graze ▲ C.6 | large distance from the castle, head office of the agricultural estate ▲ C.7 | daily life at the farm; men in the fields working with the oxen, women around the house and in the kitchen garden cultivating vegetables ▲ C.8 |
| STRUCTURE | traces of passing time visible in wathered stone facades, rotten wood constructions and pulverized flooring stones (mattoni) ▲ D.1 | structures can be divided by the period they are erected -> clear distinction between traditional wood-stone and conventional steel-concrete structures. Use of wood, bricks and straight-cut natural stone around wall openings and on edges facades, rubble masonry ▲ D.2 | craftsmanship to build traditional walls, floors and ceilings ▲ D.3 | development of the farm, built by generations of farmers, latest additions to the structure are by the owner from the 1960's Vittorio Valletta ▲ D.4 | the structures are strong with exception of wood/mattoni flooring in building A. Technical specifications are however insufficient ▲ D.5 | steel-concrete structure is in proper state, new from approximately the 1960's when Vittorio Valletta had renewed most buildings as well as podere Bovorosso ▲ D.6 | different structure materials and techniques used next to each other ▲ D.7 | surrounding walls around courtyard; protective ▲ D.8 |
| SPACE PLAN | tradition of living above stables in buildings placed around a courtyard or 'Aia' ▲ E.1 | the courtyard was a traditional building space plan; plan of living above stables is nowadays forbidden, as is the lack of sanitary - both situations represent a time that would not be reinstated ▲ E.2 | typical courtyard structure for mezzadria farming in central Italy as visualized in movies like Il Novocent (1977) by Bernardo Bertolucci; it was just functional but became iconic as well through time ▲ E.3 | courtyard and 'aia' was used for celebrations (harvest) and daily life activities, all animals are held close to the farmers ▲ E.4 | enfilade plan for living-rooms, small living quarters, as well as many small stables; inefficient, some low ceilings specifically in stables ▲ E.5 | actual floorplan with enclosed courtyard is from 1960's; latest addition by Vittorio Valletta ▲ E.6 | not allowed to live that close to the animals and with a lack of proper sanitary ▲ E.7 | protected farm by its spatial plan around a courtyard ▲ E.8 |
| SKIN | natural stone in the facades is influenced by weather for decades ▲ F.1 | use of local quarried stone and bricks produced in the nearby brick oven Fornace which does not exist anymore ▲ F.2 | yellowish appearance of the facades as result of local natural stone, which is probably a Carboniferous Sandstone, and mortar with the local stone as aggregate ▲ F.3 | stairs to first floor of the main building are iconic, everybody recognizes the farm by its staircase ▲ F.4 | walls protected the family, are still in proper state, they merge in the landscape because of local, natural building materials ▲ F.5 | concrete skins of stable exterior and interior of most rooms ▲ F.6 | outside facade is mostly in proper state and appealing while internal facade is less appealing ▲ F.7 | traditional craftsmanship, self-built structures by the farmers ▲ F.8 |
| SERVICE | traditional heating methods: - warmth of animals used to heat the living spaces ▲ - fire places ▲ G.1 | use of natural water supply from nearby lake and underground ▲ G.2 | bathroom is only room with wall decoration in blue/white colored tiles ▲ G.3 | the introduction of water supply and sanitary was revolutionary ▲ G.4 | one toilet for whole farming complex, useful fireplaces in living quarters, viewing hatches in flooring to control the animals ▲ G.5 | toilet is latest addition and was a brand new service at its commissioning/installation ▲ G.6 | virtually no sanitary ▲ G.7 | less is more, no electricity, no bath nor shower, one toilet, back to basics ▲ G.8 |
| STUFF | - abandoned machines refer to the former use as farm ▲ - rusted iron rings in the wall to tie up the oxen for shoeing them ▲ H.1 | objects reminding of former use at the farm: - oven ▲ - rings ▲ - feeding boxes ▲ - mixer ▲ H.2 | decorations on the wall of main building: ceramic number plate, and on building A: name plate, saint figures, ceramic tiles with emblem ▲ H.3 | objects are the most tangible reminders of the farms former use ▲ H.4 | (non)-useful features: - rings to attach oxen can be used for new purposes (horses) ▲ - no bathroom, one toilet ▲ - viewing hatch in floors ▲ H.5 | mixing machine is quite new and can be reused ▲ H.6 | asbest used for feeding/storage box ▲ H.7 | old mixing machine referring to heyday, so is the ceramic emblem on the facade of building A ▲ H.8 |
| SOCIAL | many Italians still know family members or others who worked and lived in mezzadria farms ▲ I.1 | period of important family life, family relationship, large families working together on a farm, everyone with his or her own task, contact between podere ▲ I.2 | All building activities, craft, daily living was organized by one large, intimate family or local companions ▲ I.3 | important family life, family hierarchy, patronage landlord, family roles spread over property ▲ I.4 | family life was important and still is in Italian culture ▲ I.5 | old users have left, died, nothing is known ▲ I.6 | ownership principality causes friction with locals ▲ I.7 | actual trend of Italians that would like to return to their roots in the countryside ▲ I.8 |

Heritage Value Matrix of Podere Bovorosso

BUILDING ANALYSIS

MAIN FARM HOUSE



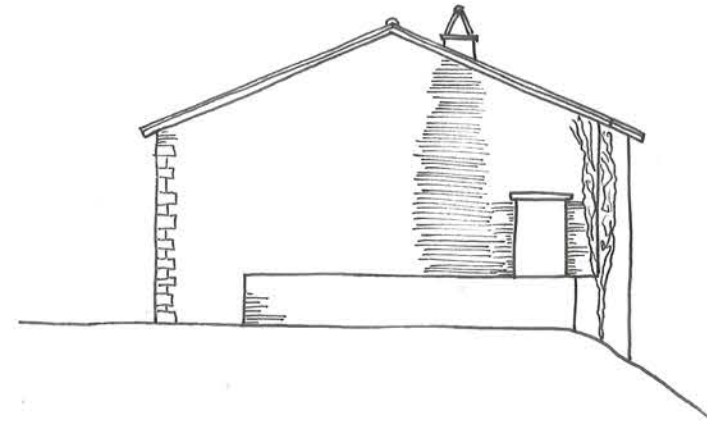
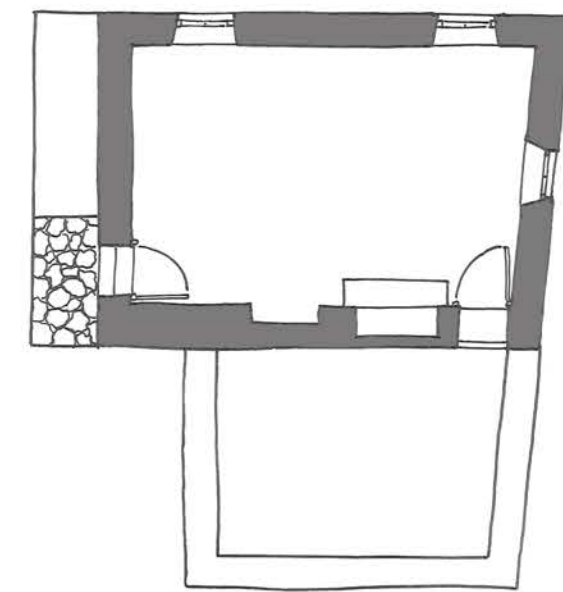
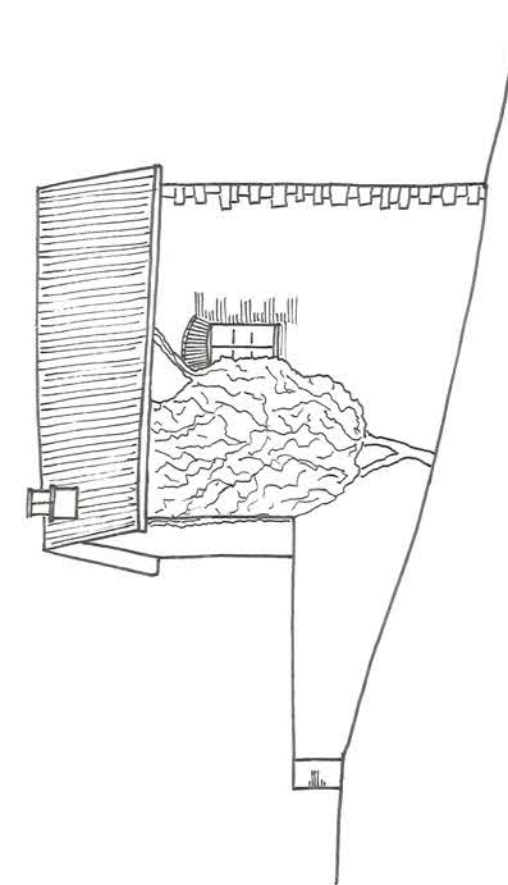
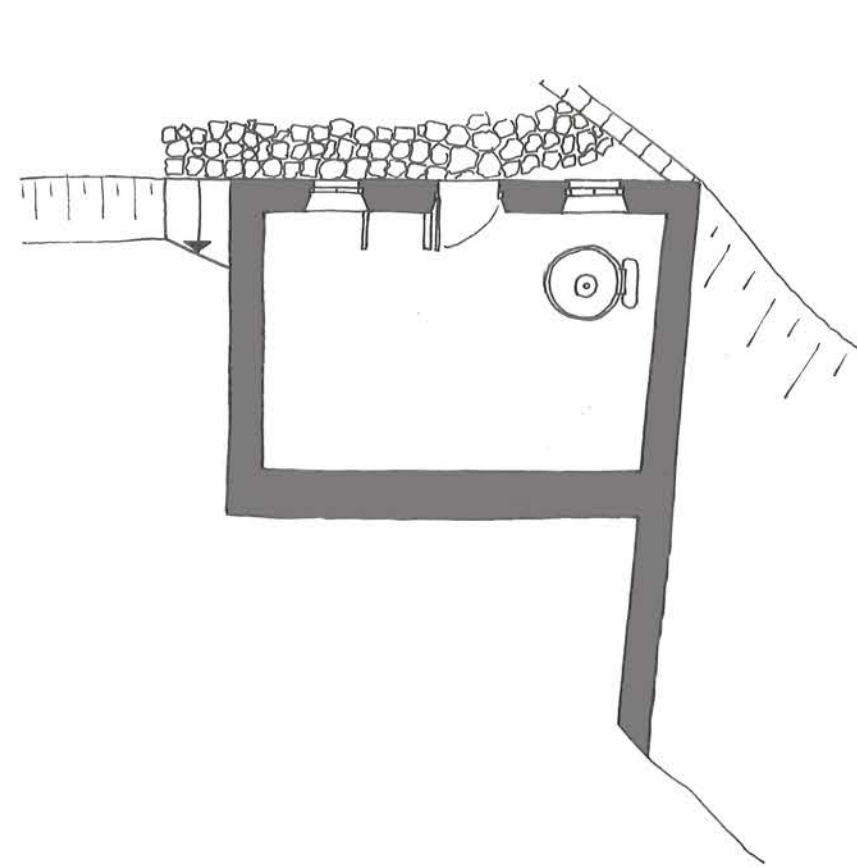
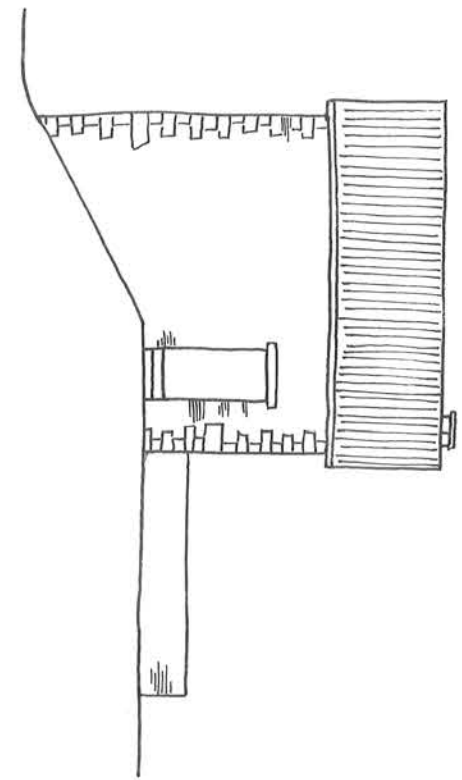
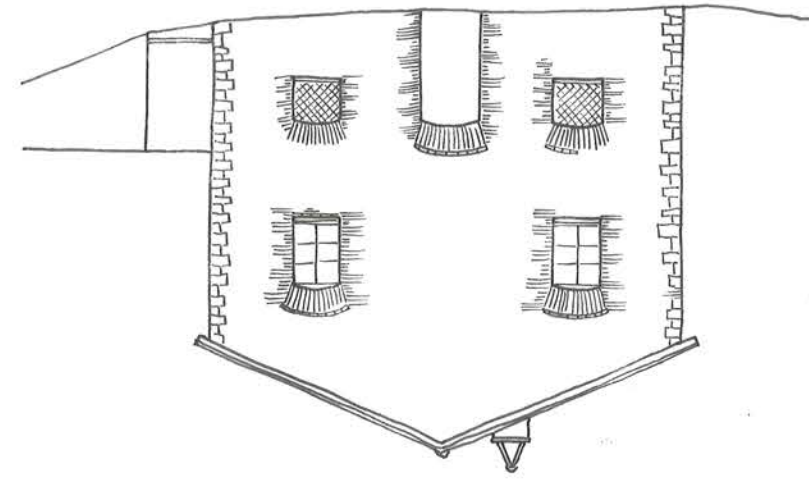
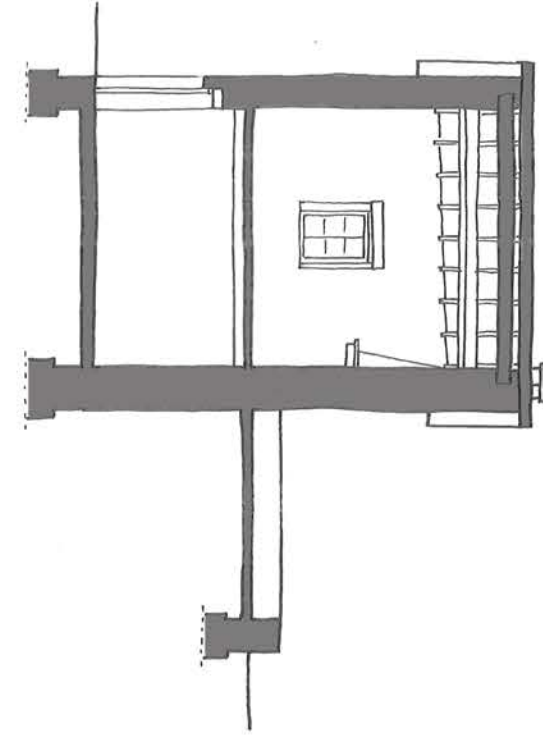
BUILDING ANALYSIS

SECOND FARM HOUSE



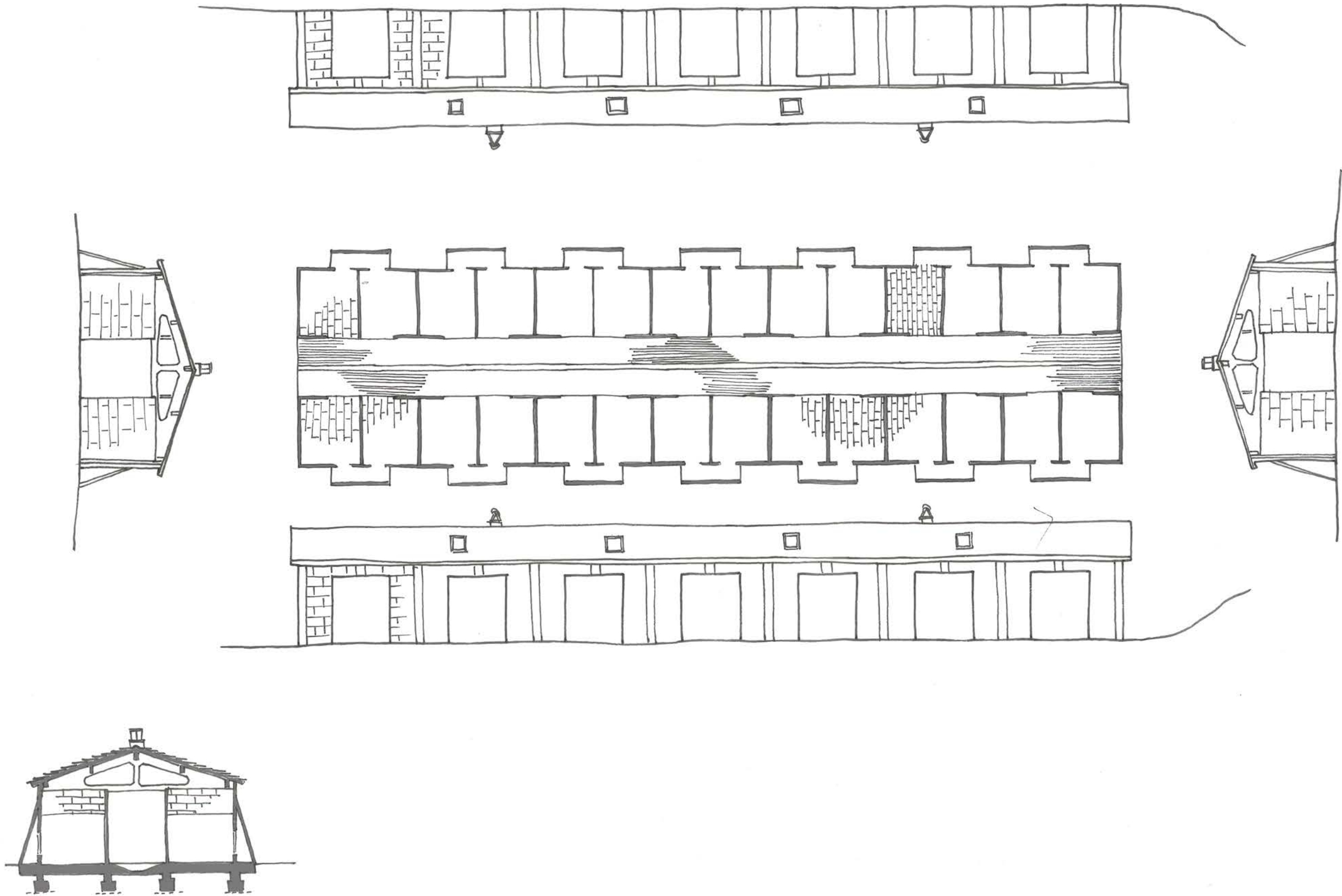
BUILDING ANALYSIS

THIRD FARM HOUSE



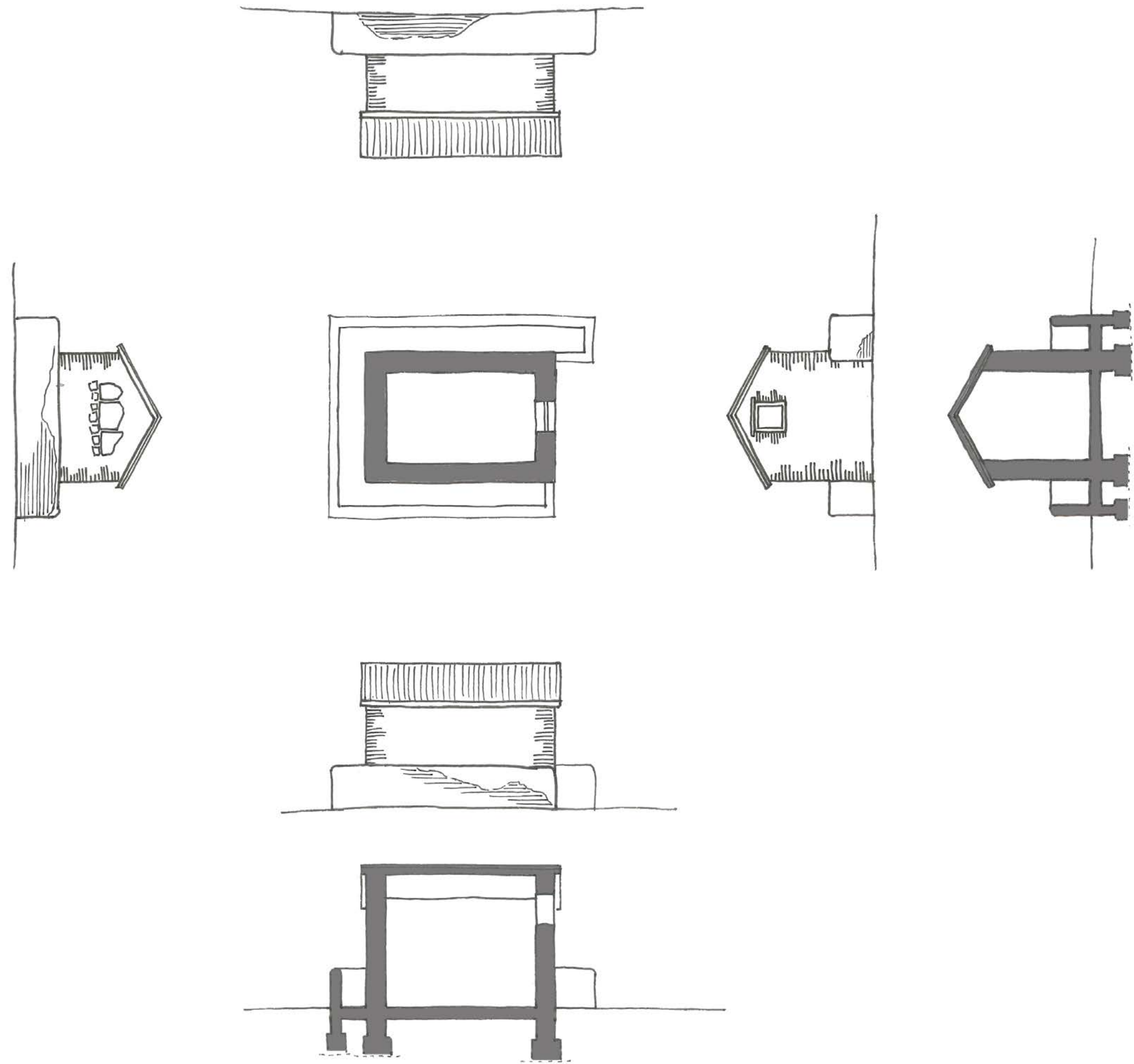
BUILDING ANALYSIS

DOG KENNEL



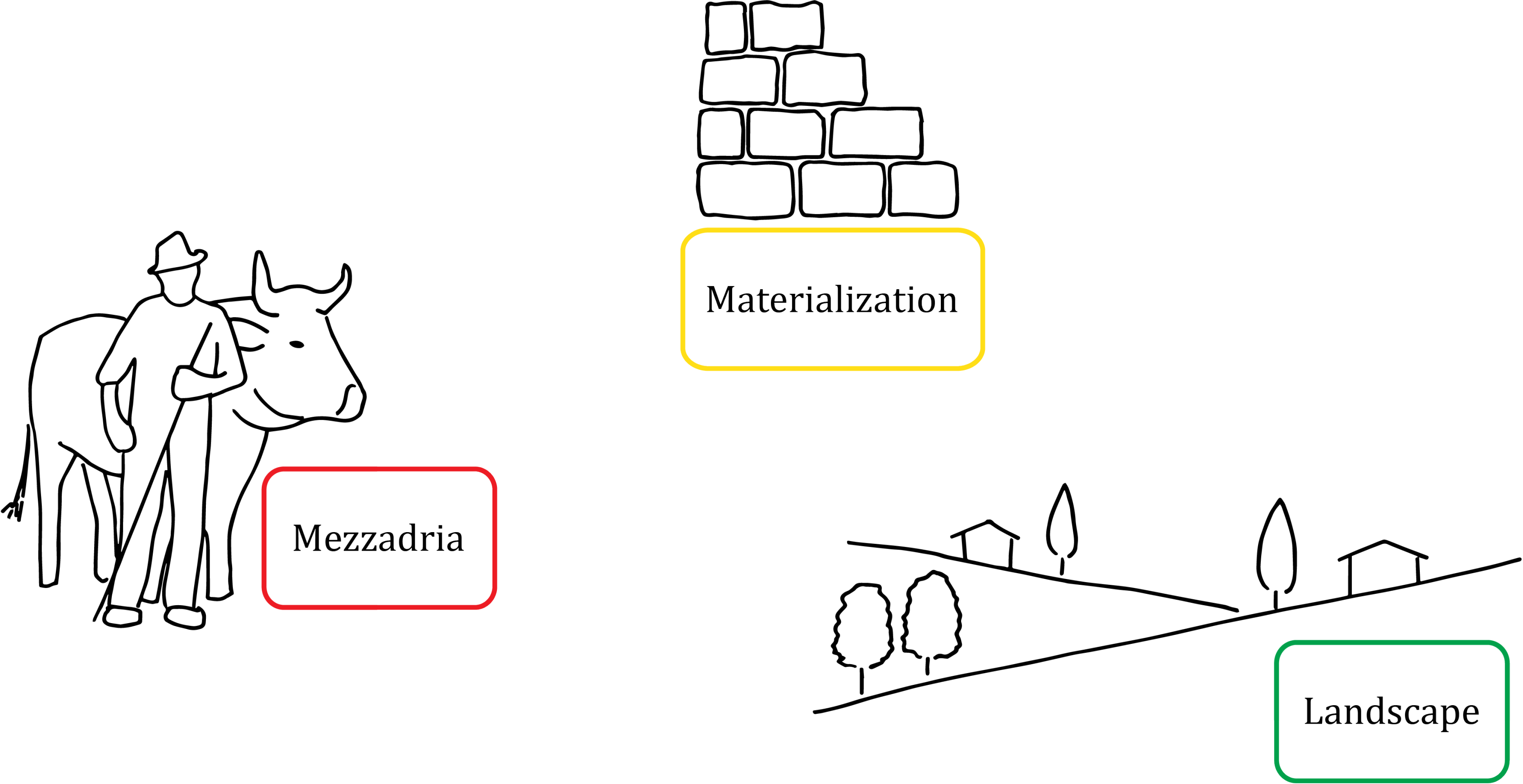
BUILDING ANALYSIS

WATER TROUGH

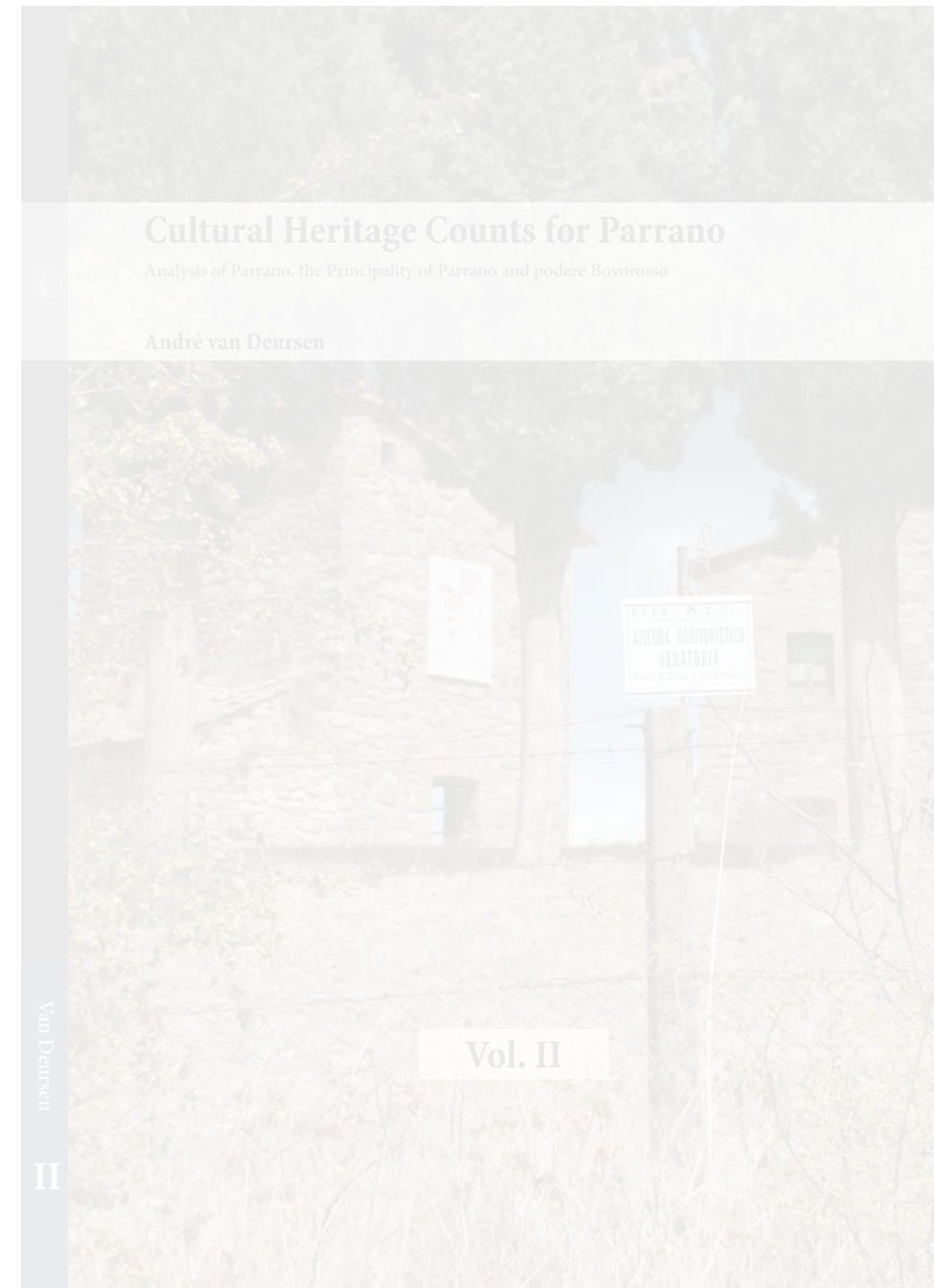
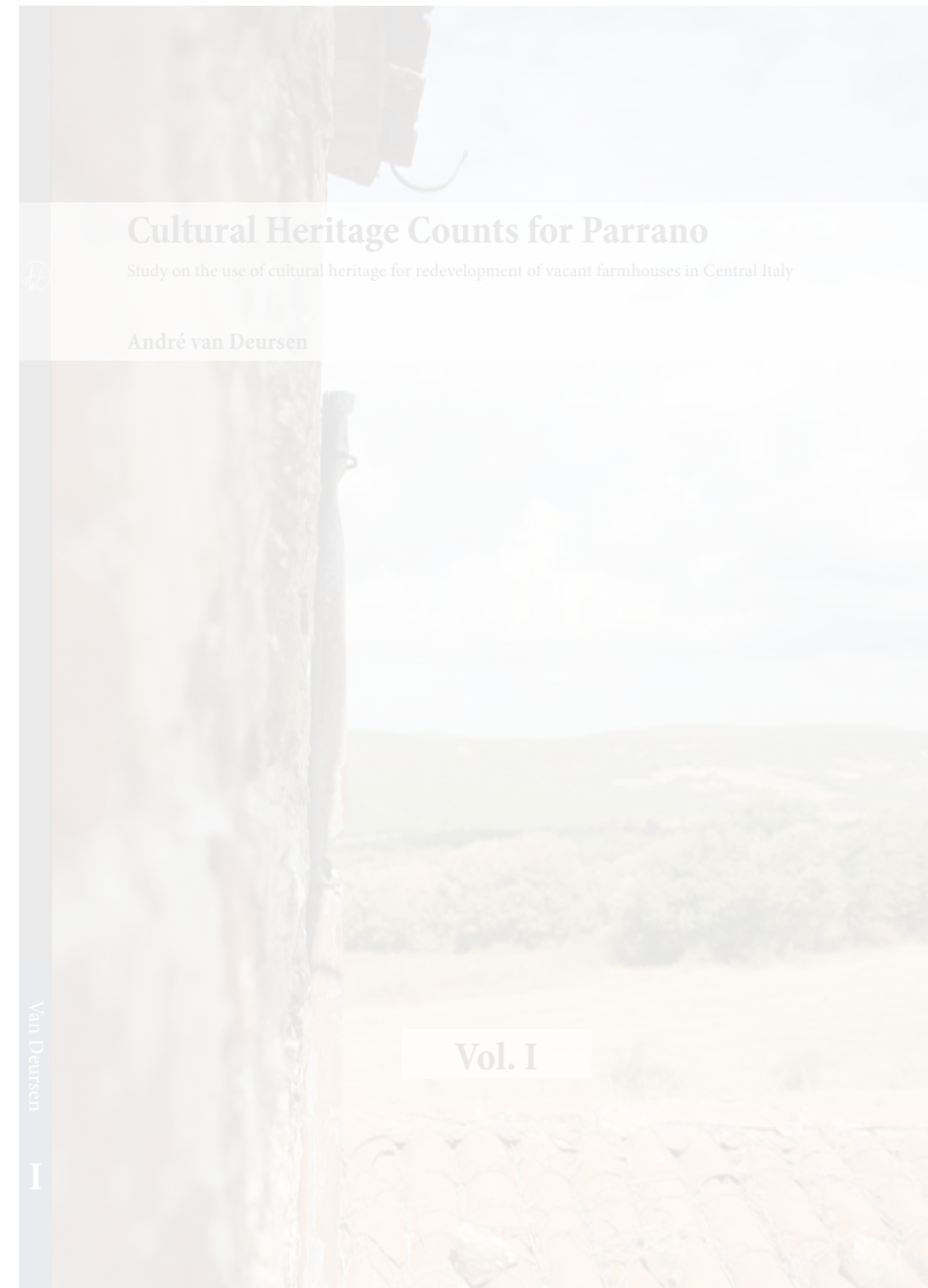


RESEARCH & ANALYSIS

THE CULTURAL HERITAGE OF THE MEZZADRIA



DESIGN



'Prova così', a handbook how to deal with vacant agricultural heritage in central Italy

// Cultural Heritage Counts for Parrano

DESIGN PALETTE

QUALITIES



Facade openings

Characteristics of the existing, dark, empty and hollow wall openings have become a theme for the newly designed windows and doors as well as the framing of the wall openings.



Climate

Climatological conditions are location specific. Some conditions are positive and can be used, others are less desirable and need control. Specifically the regulation of internal climates inside buildings is of great importance within this theme.



Landscape

Existing characteristics of the Parrano landscape like: terraces, greenery, pavements, 'muro a secco', sightlines, hills and panorama's are all part of the landscape theme. Their influence on the climate make these elements of great value for the location.



Cittaslow

Parrano is part of the International Cittaslow network. The values and qualities that Cittaslow includes and represents are a theme for the redevelopment of the Principality of Parrano.



Colors

Colors of Parrano are related to the soil and the landscape. They characterize the place and are in some ways part of the cultural heritage. New colors, used in accents, can add value in all kinds of ways and is worth attention.



Society

The social aspect of the mezzadria, as well as the importance of social coherence in developments, has made this theme of great importance to implement the project successfully in the existing community, to involve the population with the plan and to attract new people to Parrano.



Economy

Like the economic situation of the principality was of great importance in the past, also the future economic activity is a crucial element for a successful redevelopment of the principality to make it flourish again.



Environment

Environment and Sustainability are linked. Taking care and improving the environment asks for sustainable methods of using it. Both natural and built environment are considered, within this theme, as important elements for a successful development.



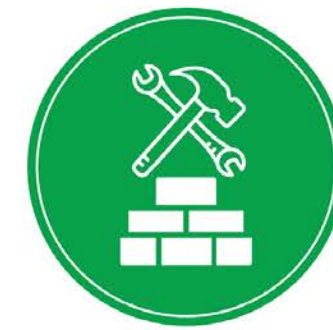
Culture

Parrano has many cultural assets that can be cultivated to make them of greater value. Some investment or some improvements can make them even more valuable. Culture is one of the keys for Parrano's successful future.



Self-sufficiency

Farms were operating self-sufficient as much as possible within the *mezzadria*. Farmers and their families grew multiple crops to provide both themselves as well as their landlord. Spreading risks and economic profit is the basis of this theme to make the principality self-sufficient.



Building Materials & Techniques

Local building materials and traditional building techniques are important elements for designing new buildings and renovating or restoring existing buildings.



Greenery

Because of the importance of greenery, it has become a specific theme. Traditional vegetation is maintained and cared for while new plants, trees and flowers are introduced to improve the greenery status of the principality.



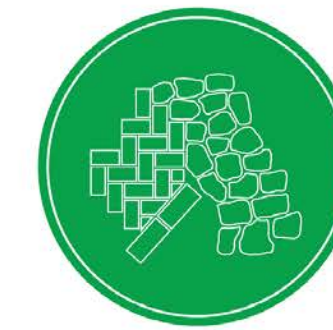
Organization

Mezzadria was an hierarchical structure to organize agriculture in Italy. This structure stopped working in the twentieth century and a new organization is needed to redevelop the Principality of Parrano.



Program

The new program is based on functions from the past, valuable assets that can be exploited, existing program qualities that need refurbishment and ideas that will be implemented because they upgrade the present values.



Pavements

Like greenery and building materials, the pavements became a specific theme within the redevelopment. Floorings, paths and pavements represent history as well as function, use and esthetics and therefore influence behaviour and appearance.



Sustainability

Re-use, reducing waste material and operating self-sufficient are some of the main elements from this theme that will be implemented in the new development plan.



Roofings & Pergolas

Both roofings and pergolas are important tools in characterizing architecture to place and culture. Italian characteristics of both elements are authenticized and modernized in this design to represent the culture of these elements and to improve them.



Upstairs - Downstairs

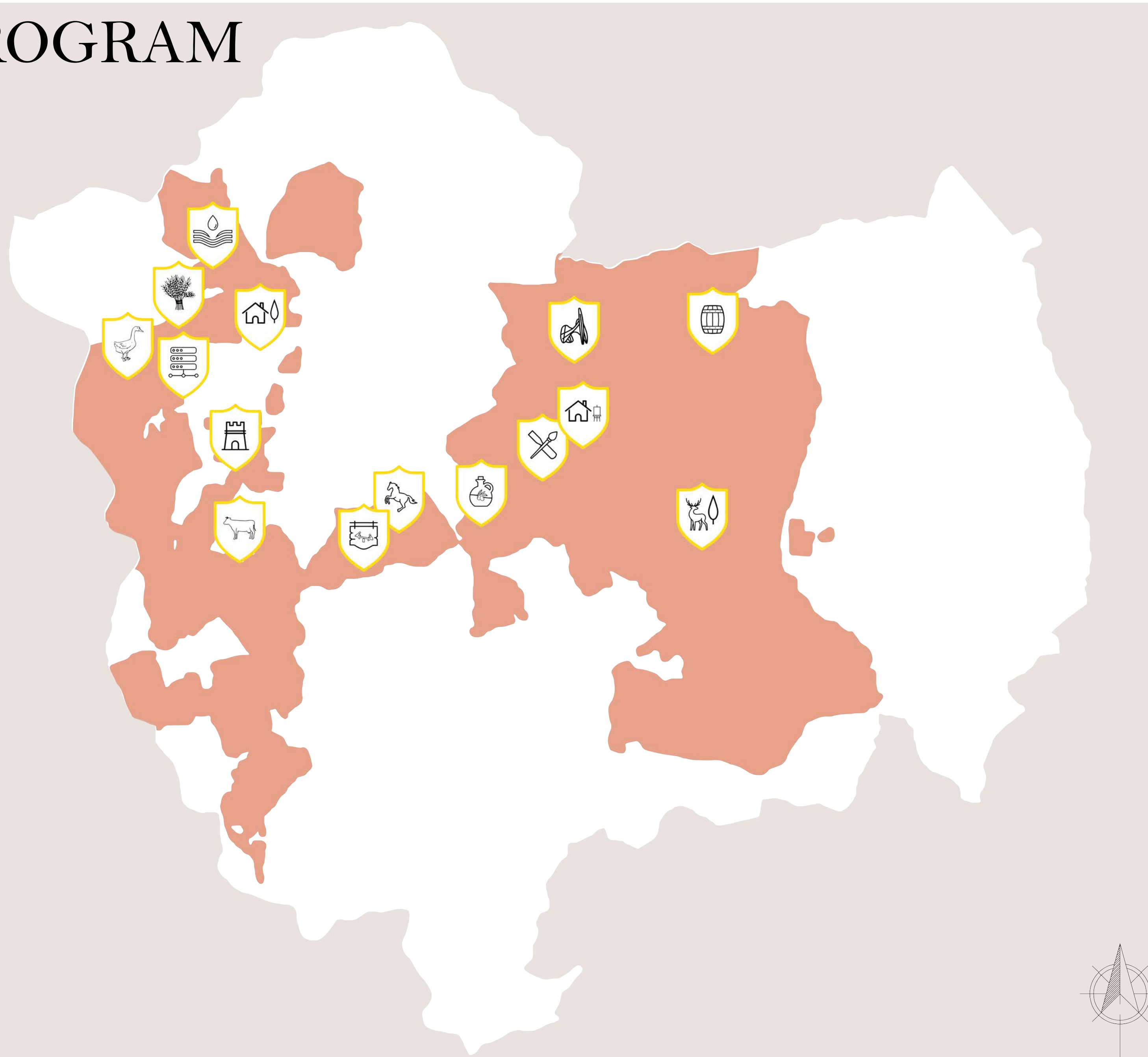
The traditional 'upstairs-downstairs' organization of the Italian farmhouse can not be maintained but because of the cultural and architectonic importance, this theme stimulates new solutions based on this characteristic structure.

PRINCIPATO DI PARRANO

THEMA: 'EcoDiversa'

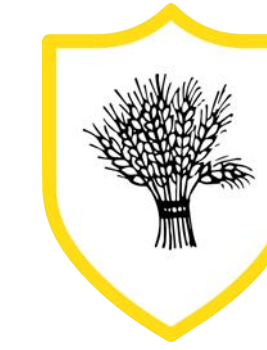


PROGRAM



Tane del Diavolo
Thermal Spa Resort

- public swimming pool
- thermal spa
- spa resort
- cave excursions
- thermal water products



Podere Turbina
Arable Farming

- production of wheat
- example traditional farming



Podere Lontaneto
Goose Farm

- goose breeding
- meat
- feathers



Podere Pantovenzo
ICT Farm

- server farm
- ICT development



Poderetto
Agritourismo

- maintenance function
- tourist housing



Parrano Castle
Museumhotel & Community Center

- hotel
- museum
- Parrano community center
- storage local products



Casale dei Sassi
Horse Farm

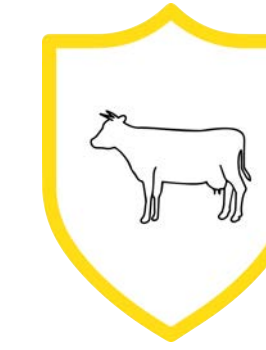
- riding school
- equestrian sports
- horse breeding
- horse riding
- horse pension



Casa Giovanile*
Youth Home

- children daycare center
- activities
- playground
- self-organized

*former hunting trainingsground



Podere Verciano
Chianina Farm

- Chianina breeding
- example traditional farming



Primo Casale
Olive Farm

- olive grove
- oil production
- cooperative production



Secondo Casale
Art Community Center

- workshop
- artist residences
- outdoor museum
- art parc



Terzo Casale
Agritourismo & Artist Residence

- artist residence
- tourist housing
- art parc



Podere Bovorosso
Vinyard Estate & Solar Farm

- wine
- solar energy
- olive
- agritourism

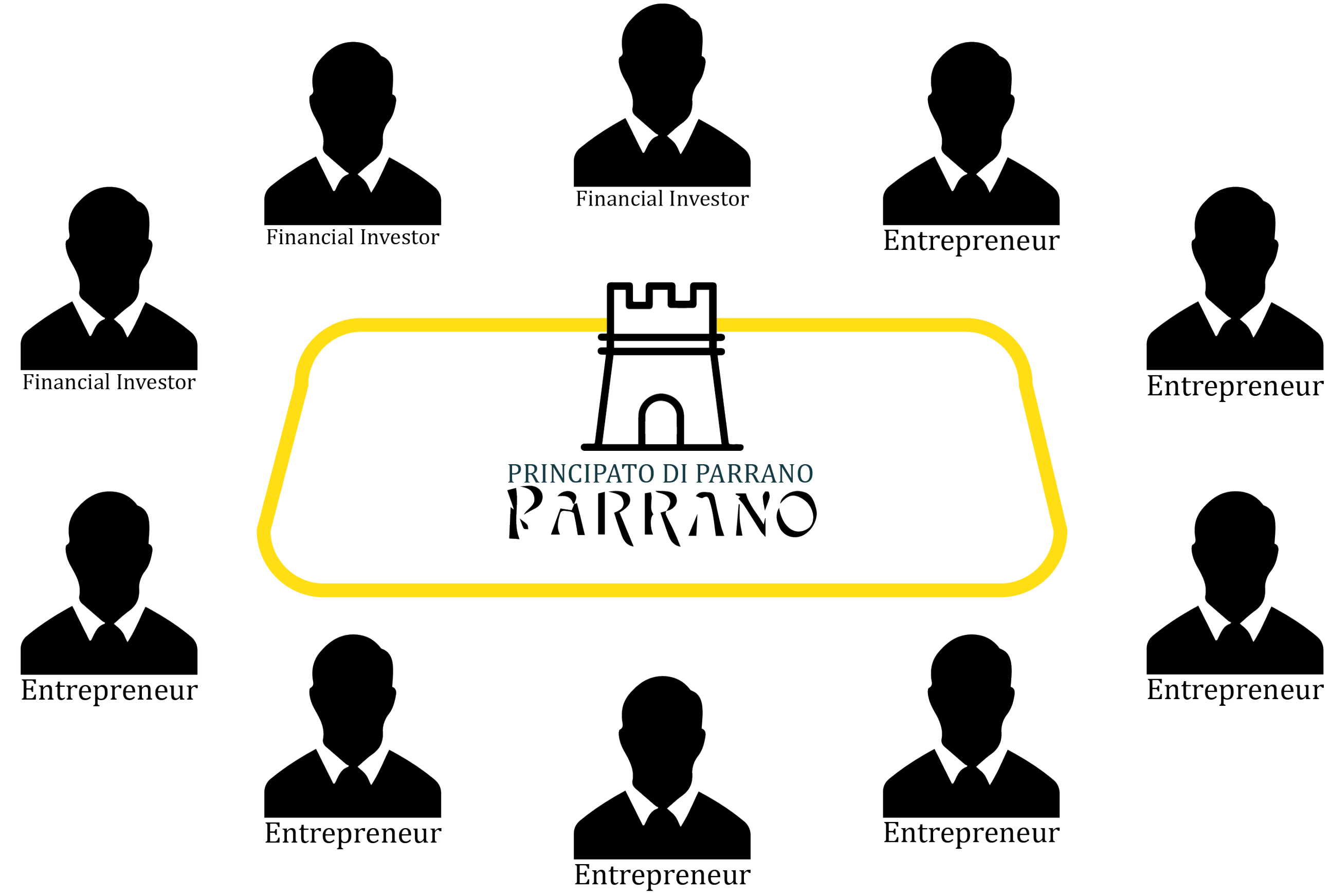


Pian di Meano
Parrano Natural Reserve

- hunting & truffle lodge
- hotel
- restaurant

PRINCIPATO DI PARRANO

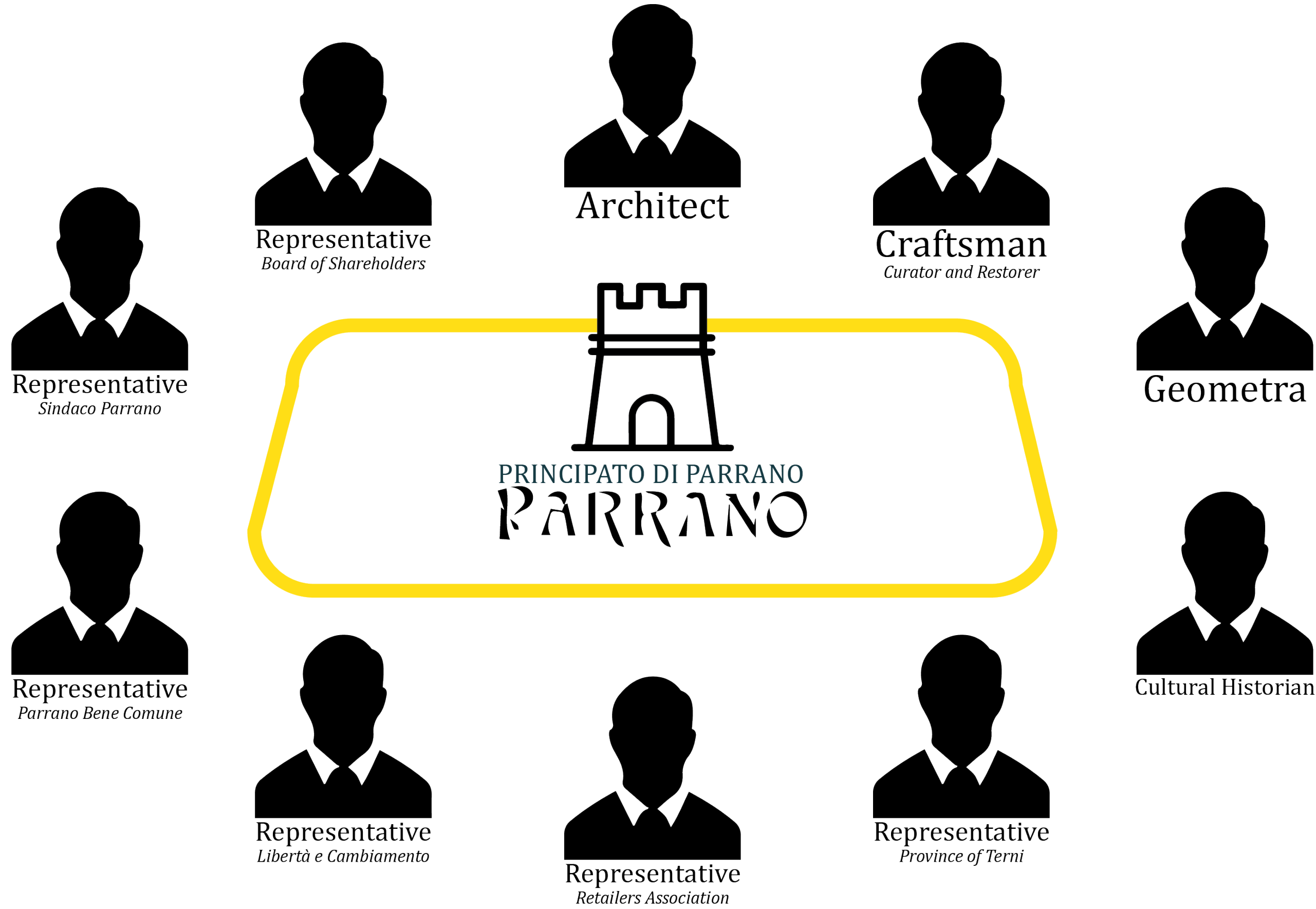
ORGANIZATION



Board of Shareholders

PRINCIPATO DI PARRANO

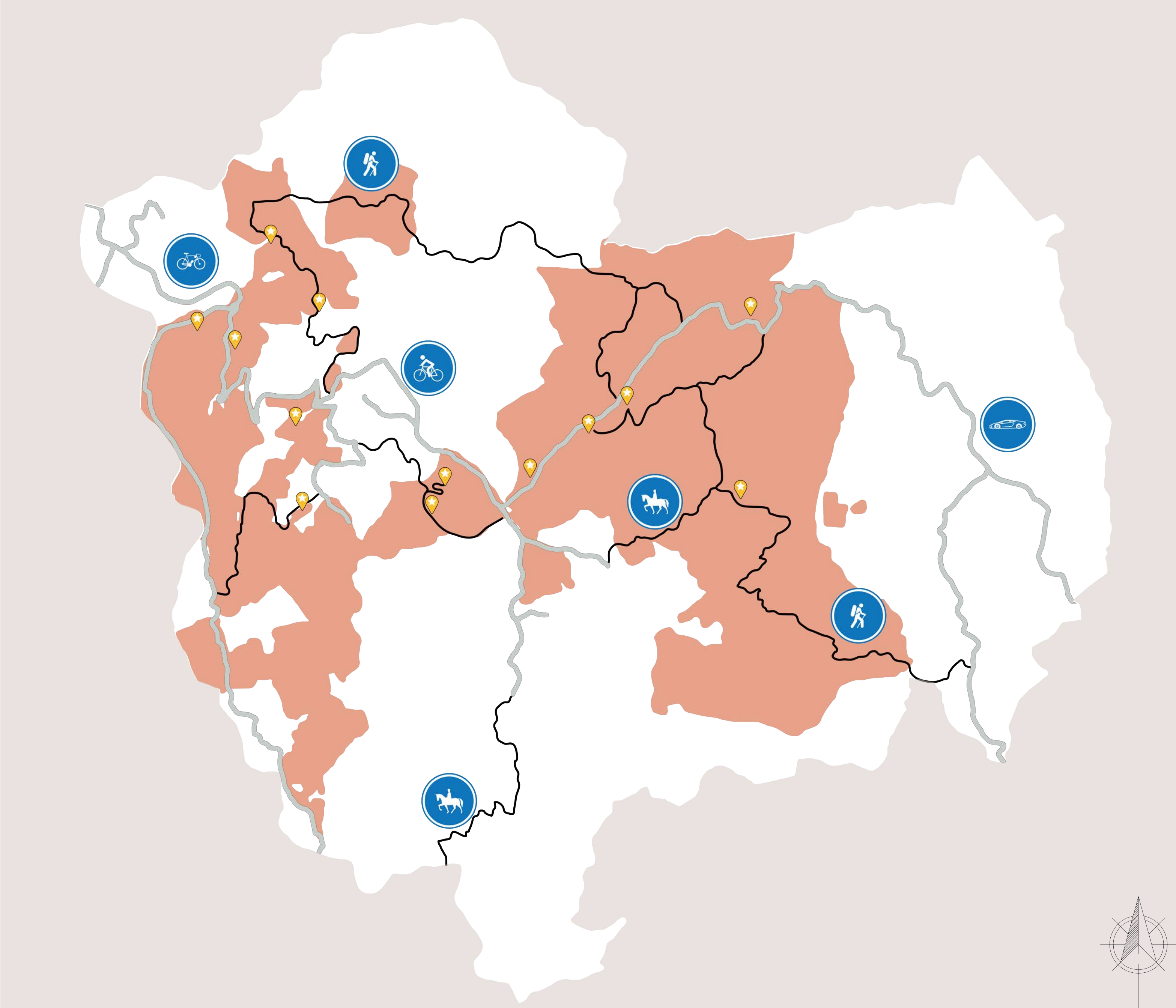
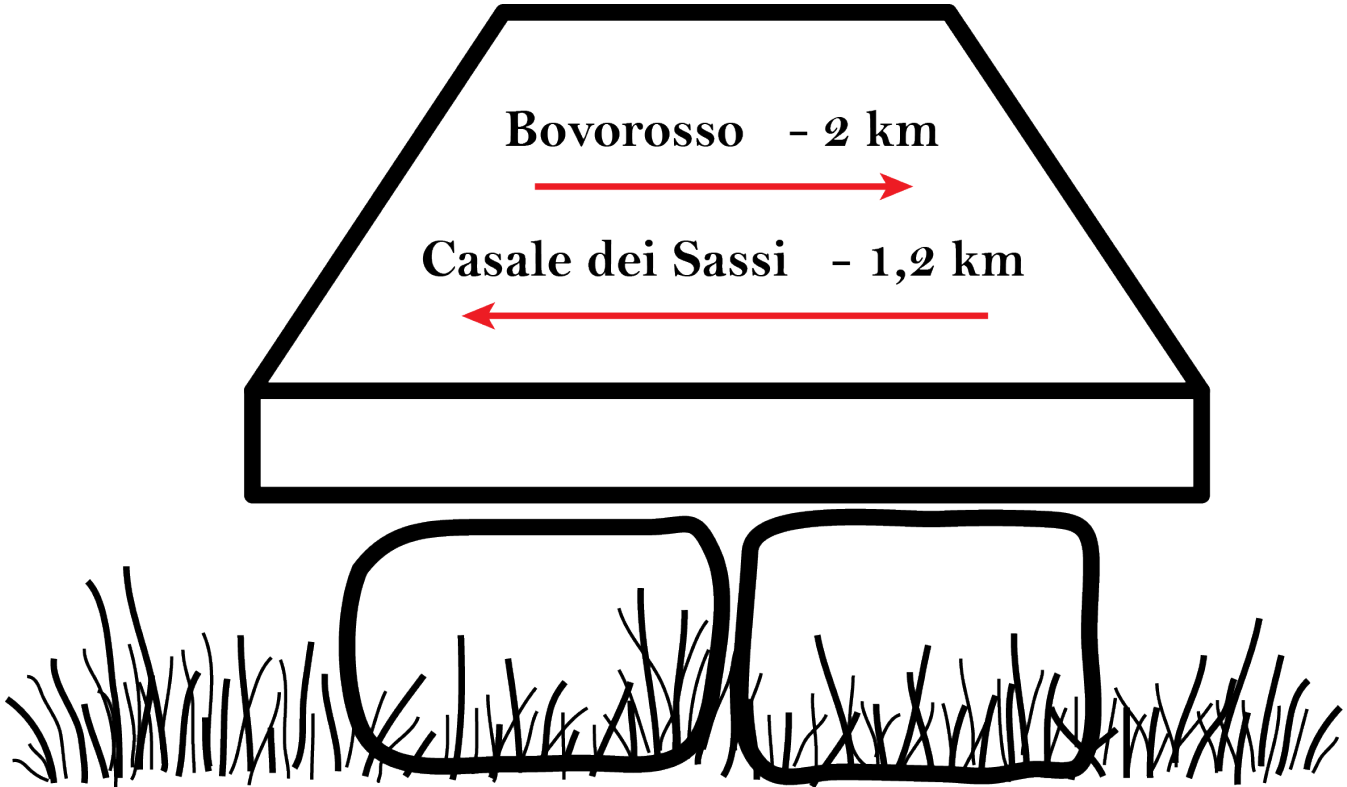
ORGANIZATION



Participation Council

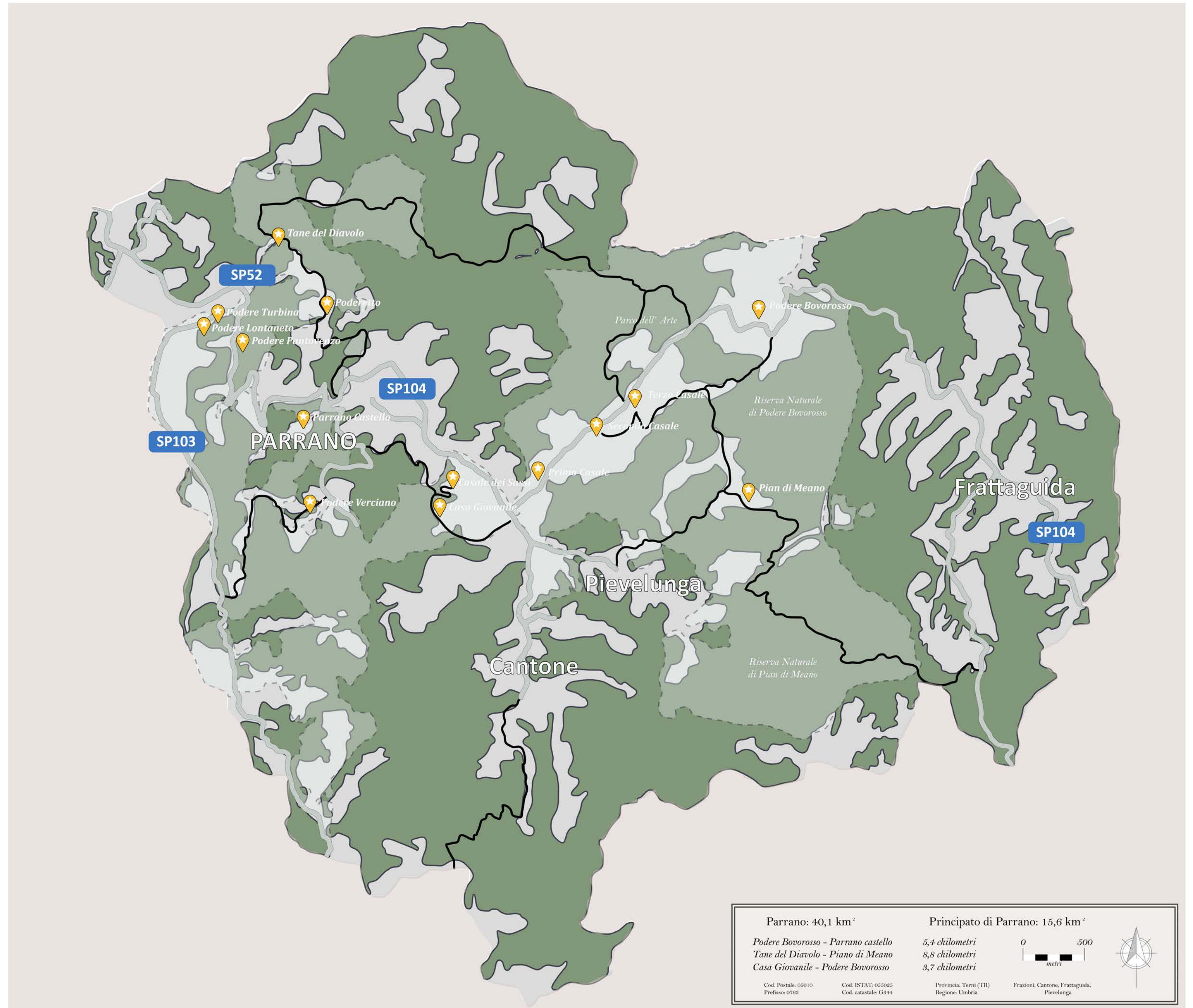
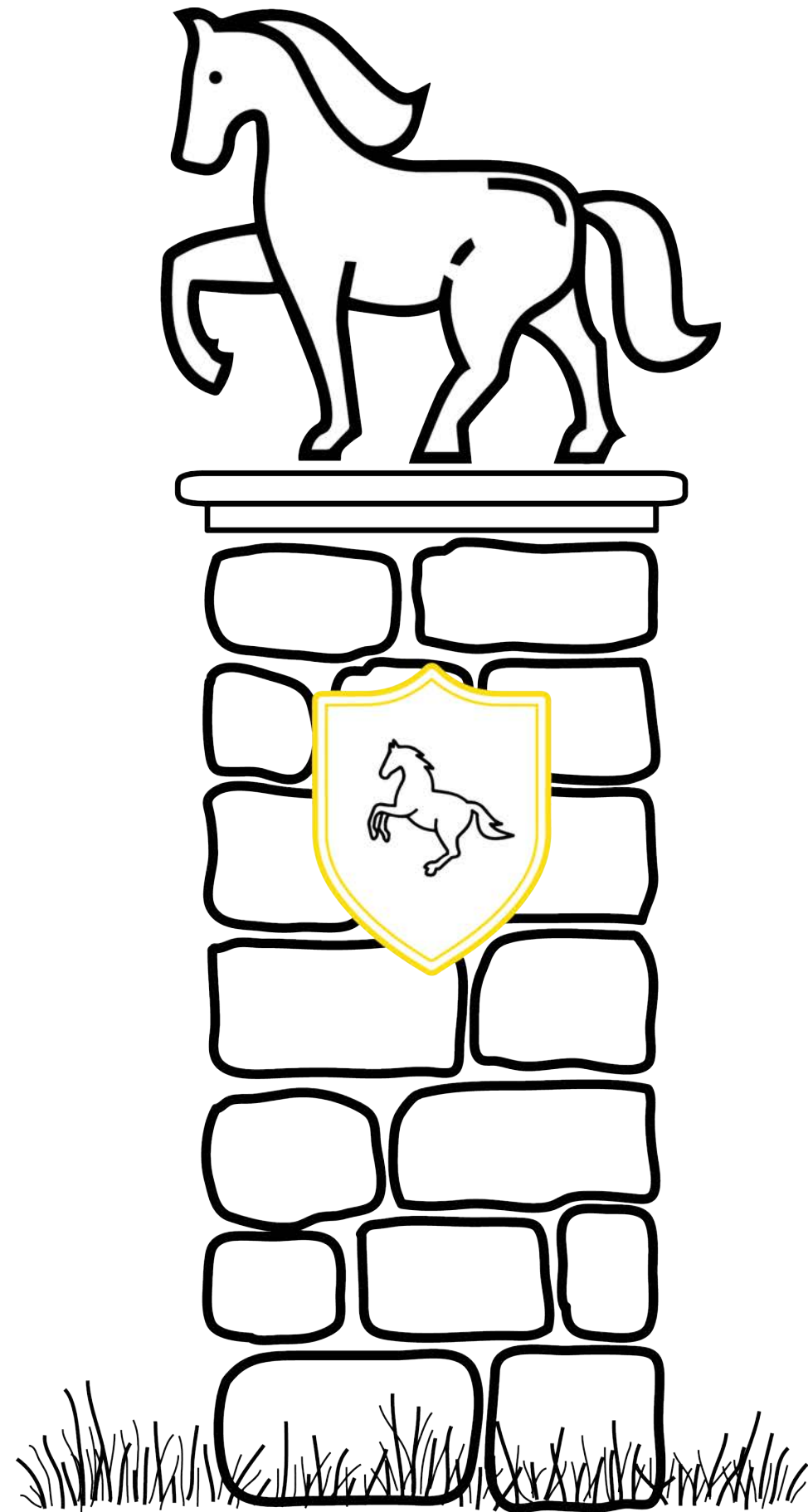
MASTERPLAN

INFRASTRUCTURE



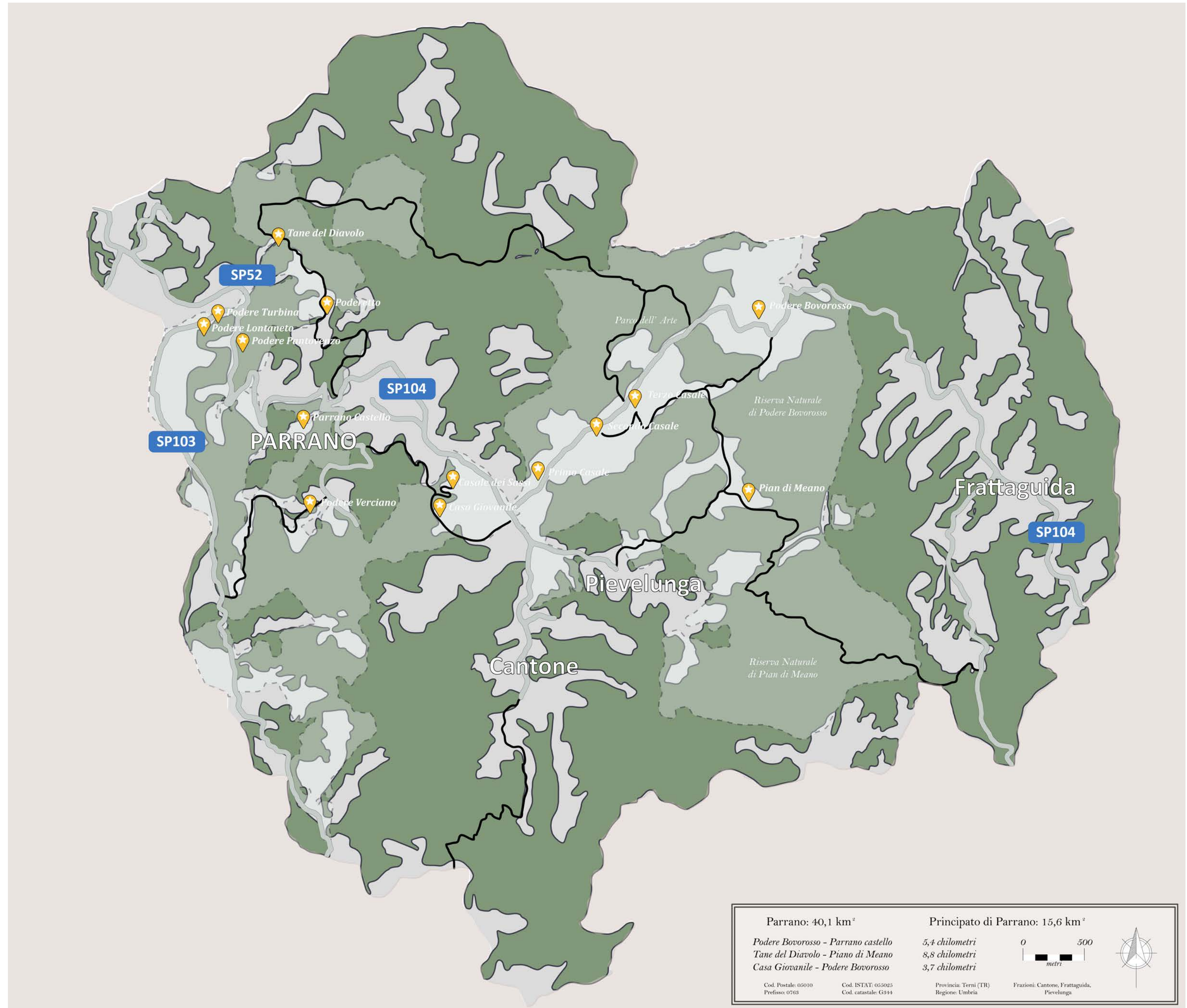
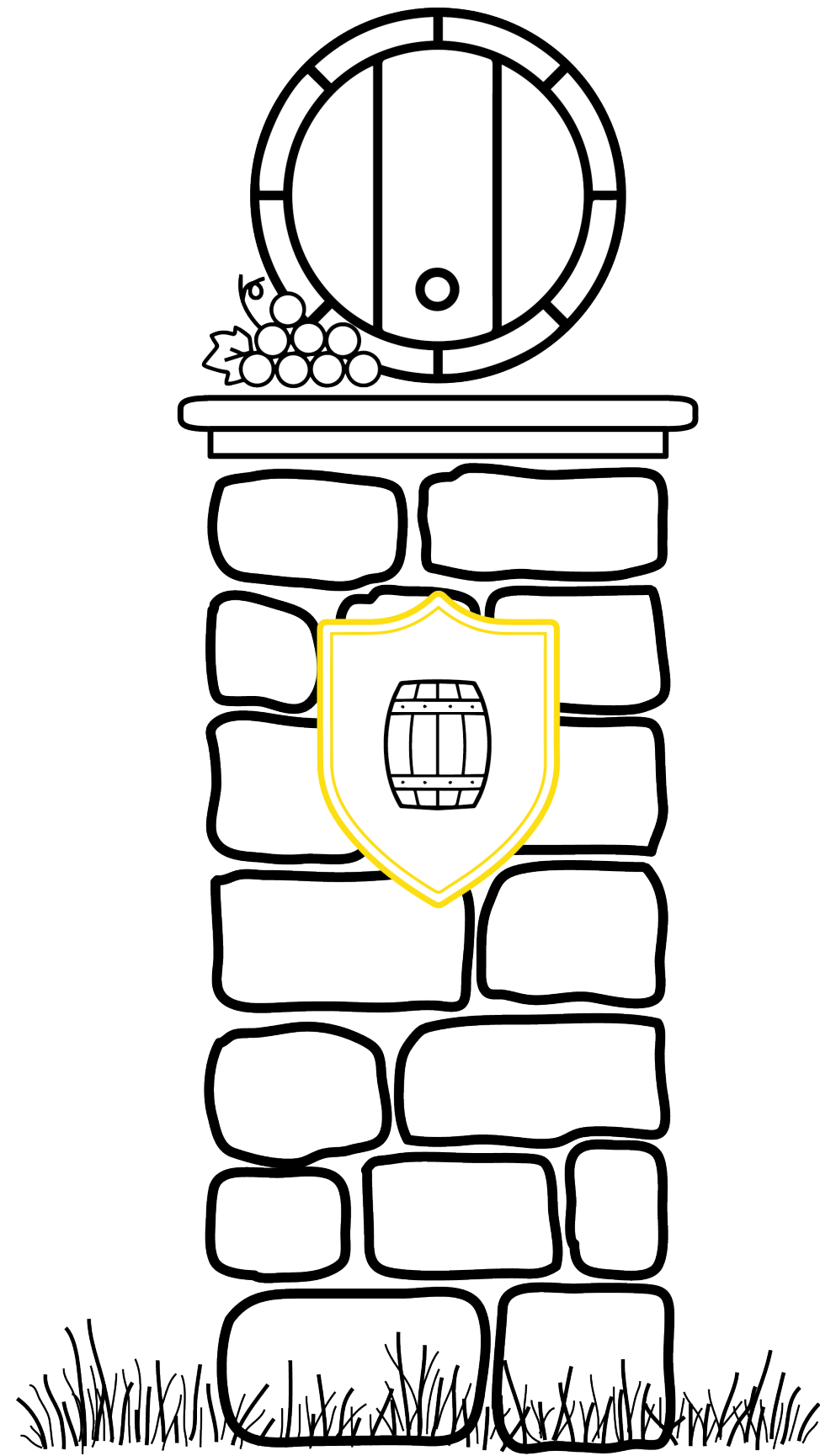
MASTERPLAN

LANDSCAPE DESIGN



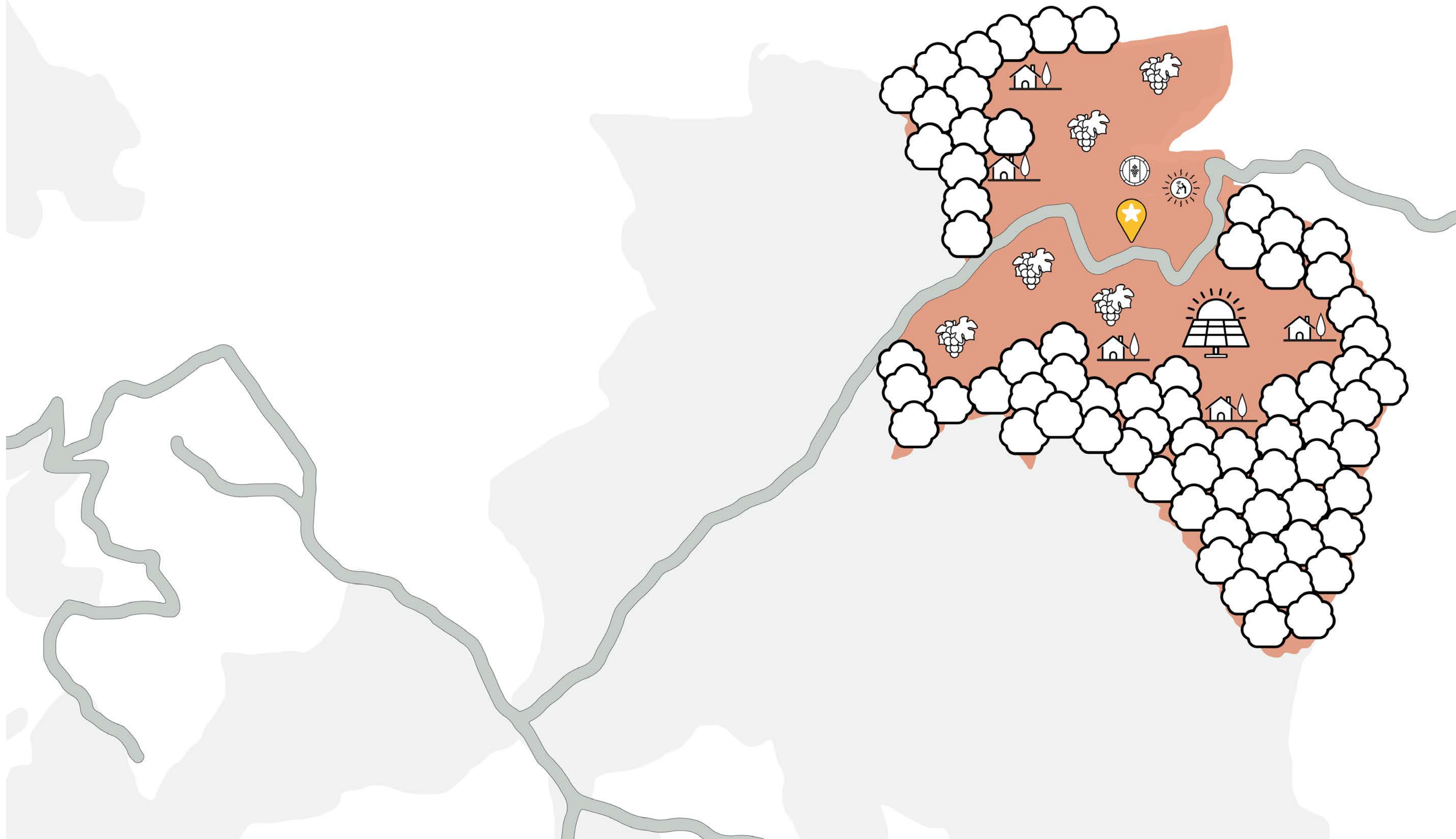
MASTERPLAN

LANDSCAPE DESIGN



PODERE BOVOROSSO

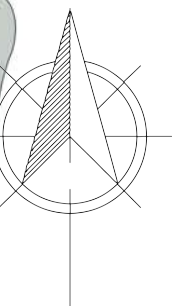
PROGRAM



Legenda

-  Solar and Territorial Information Center
-  Winery, Distillery and Production Facility
-  Podere Bovorosso Headquarters and Cantina
-  Solarparc - Parco Fotovoltaico
-  Vineyard
-  Agritourism
-  Forests

Podere Bovorosso, Parrano, TR

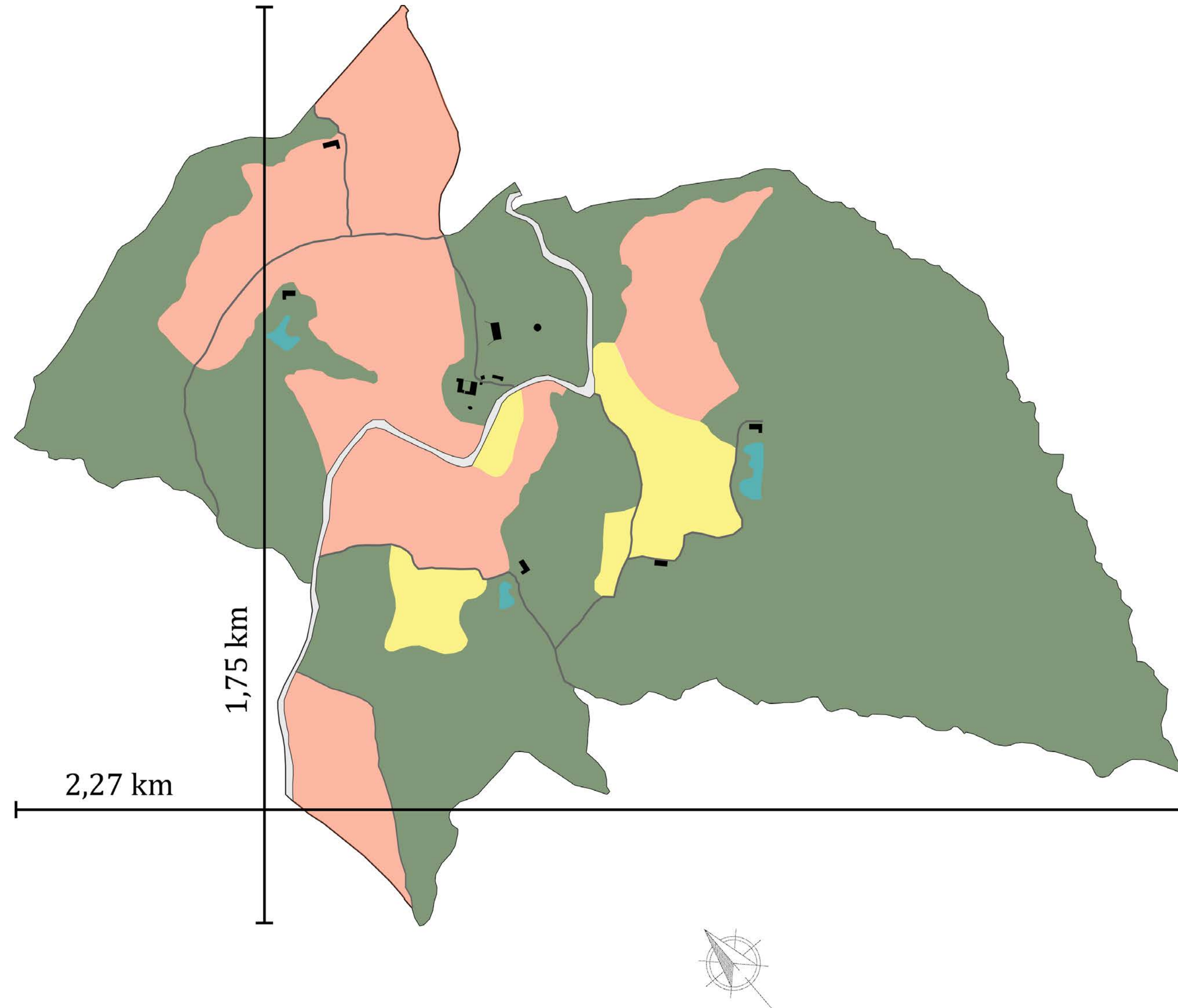


BOVO ROSSO



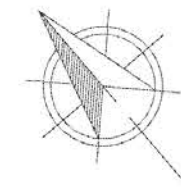
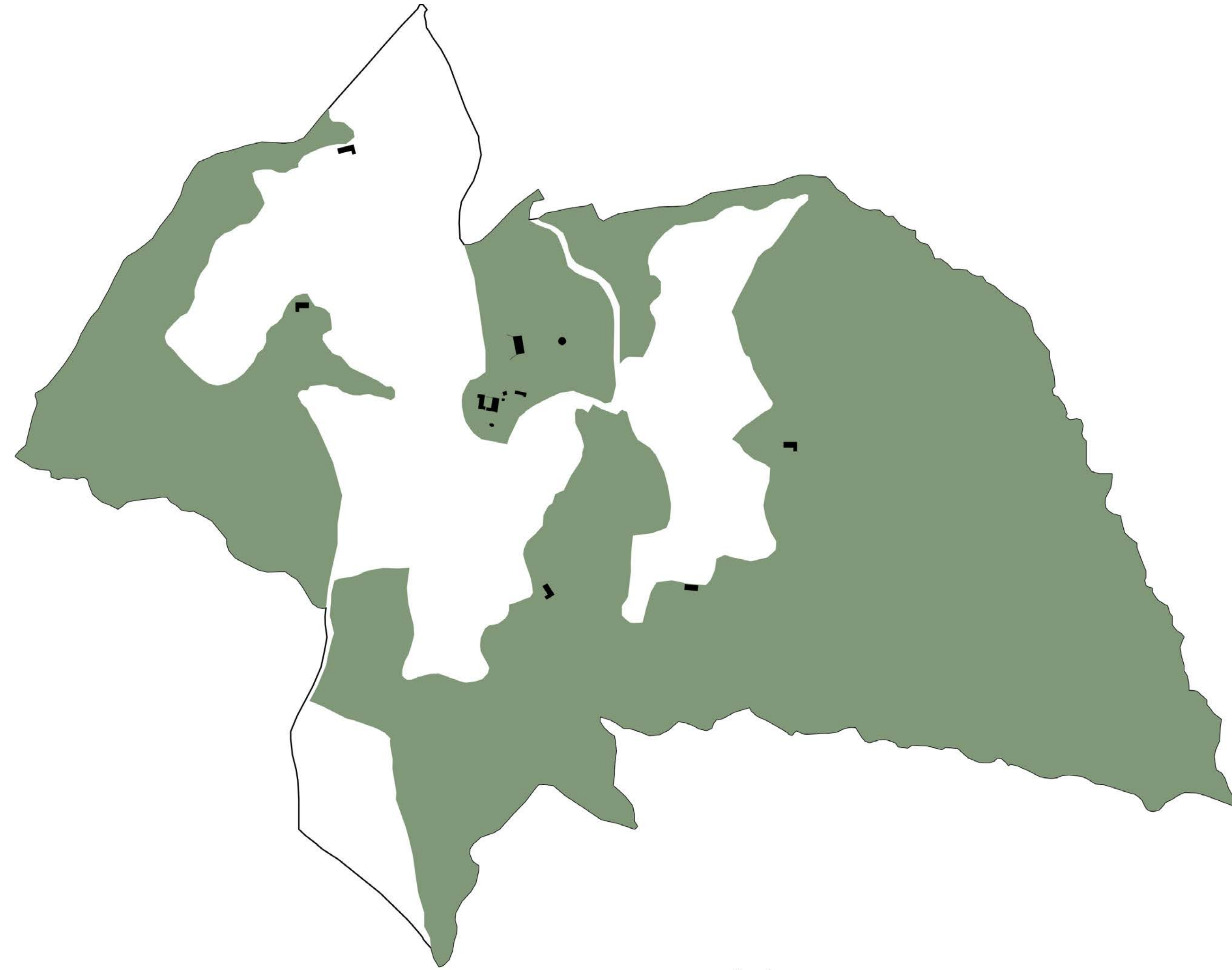
PODERE BOVOROSSO

MASTERPLAN



PODERE BOVOROSSO

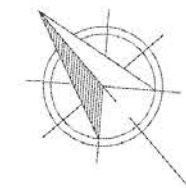
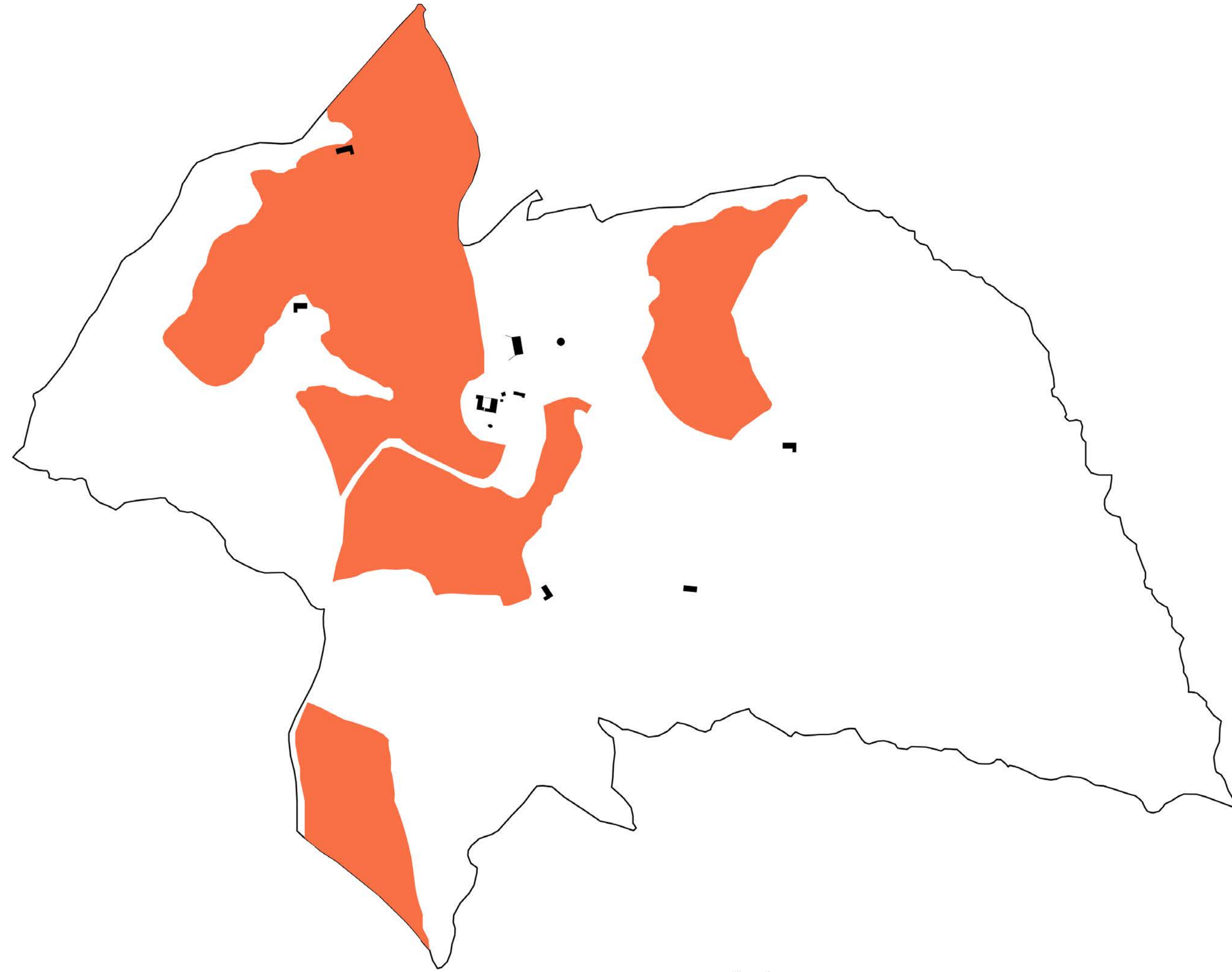
MASTERPLAN



Forests and Fields

PODERE BOVOROSSO

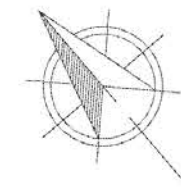
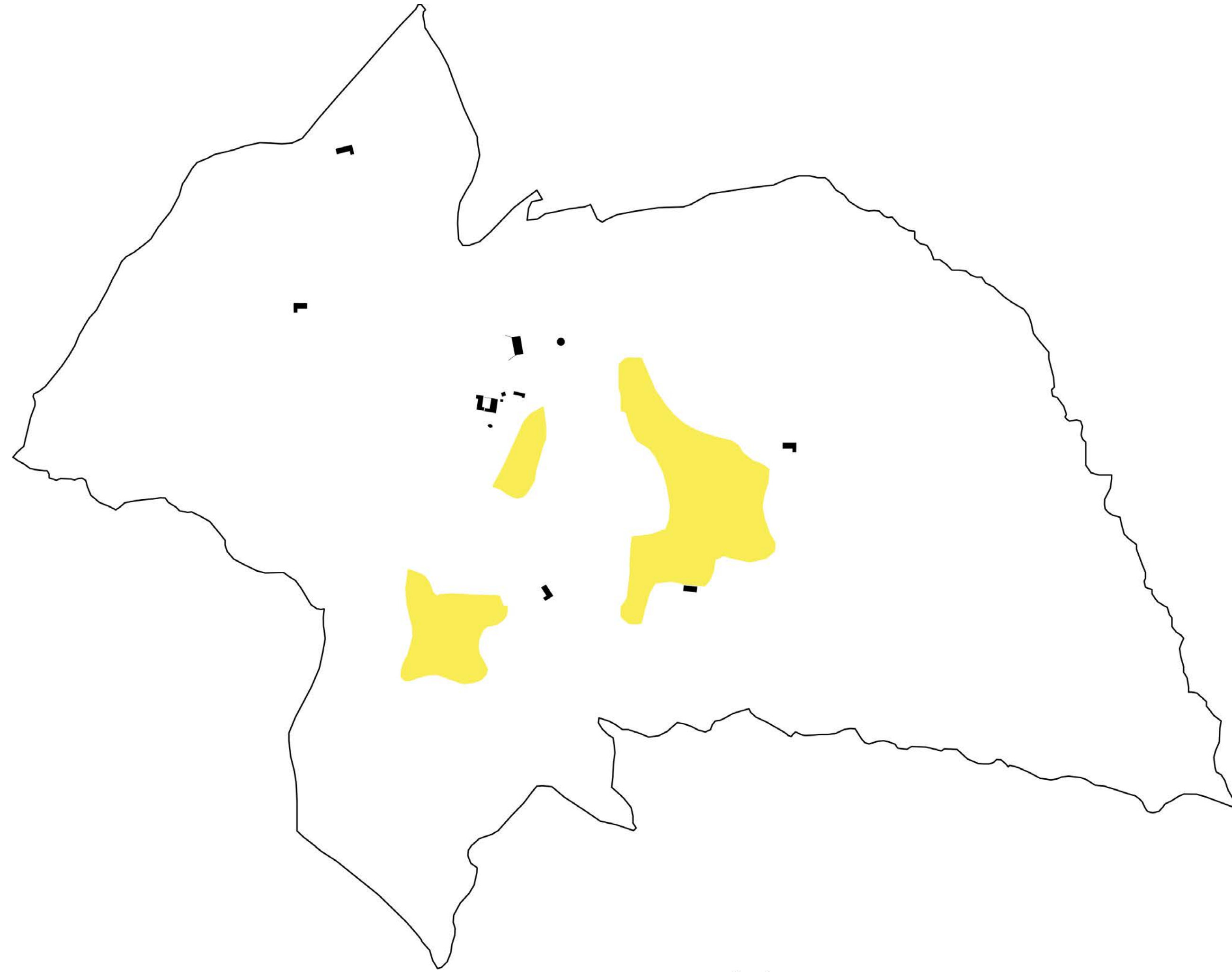
MASTERPLAN



Vineyards

PODERE BOVOROSSO

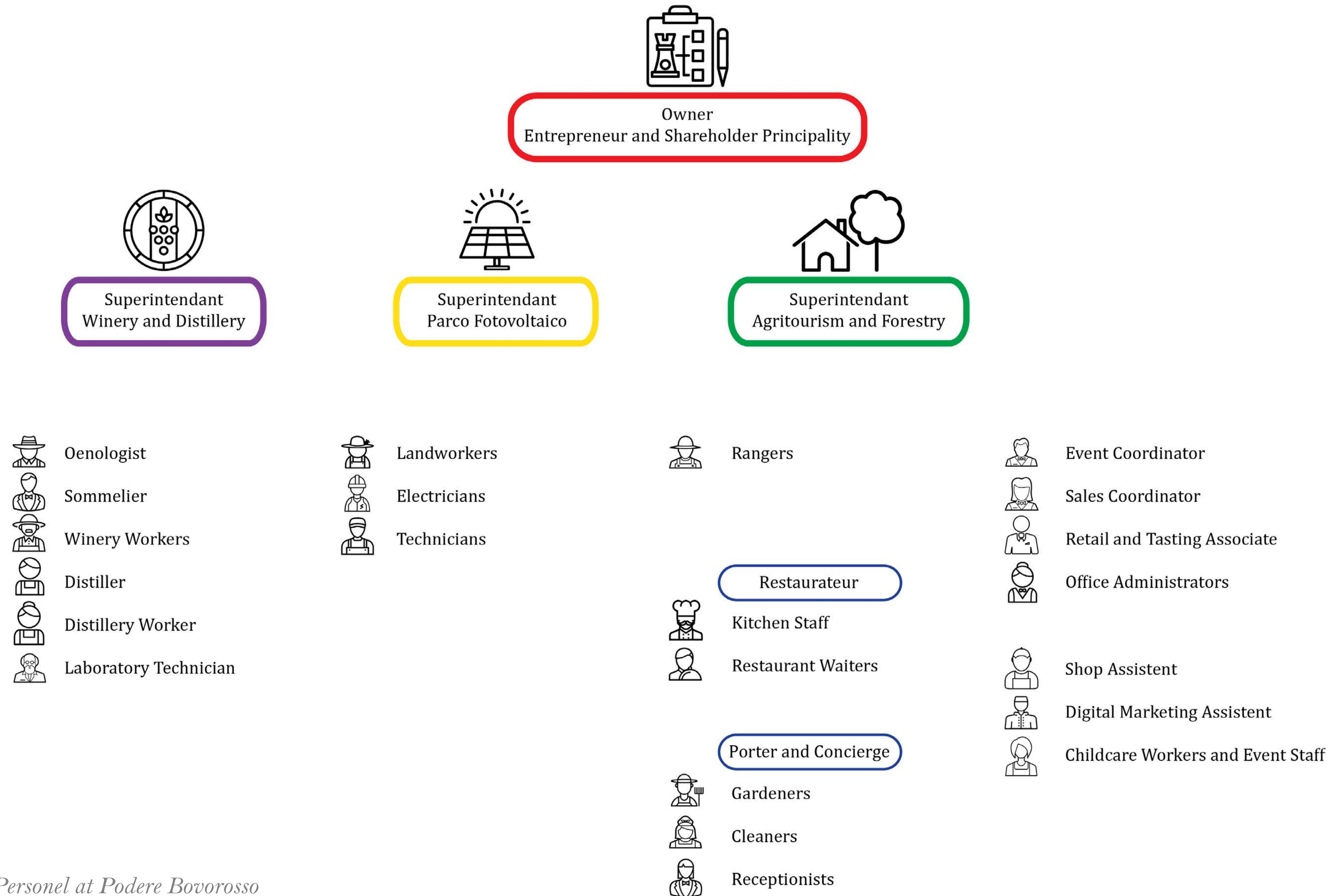
MASTERPLAN



Parco Fotovoltaico

PODERE BOVOROSSO

ORGANIZATION



Personel at Podere Bovorosso

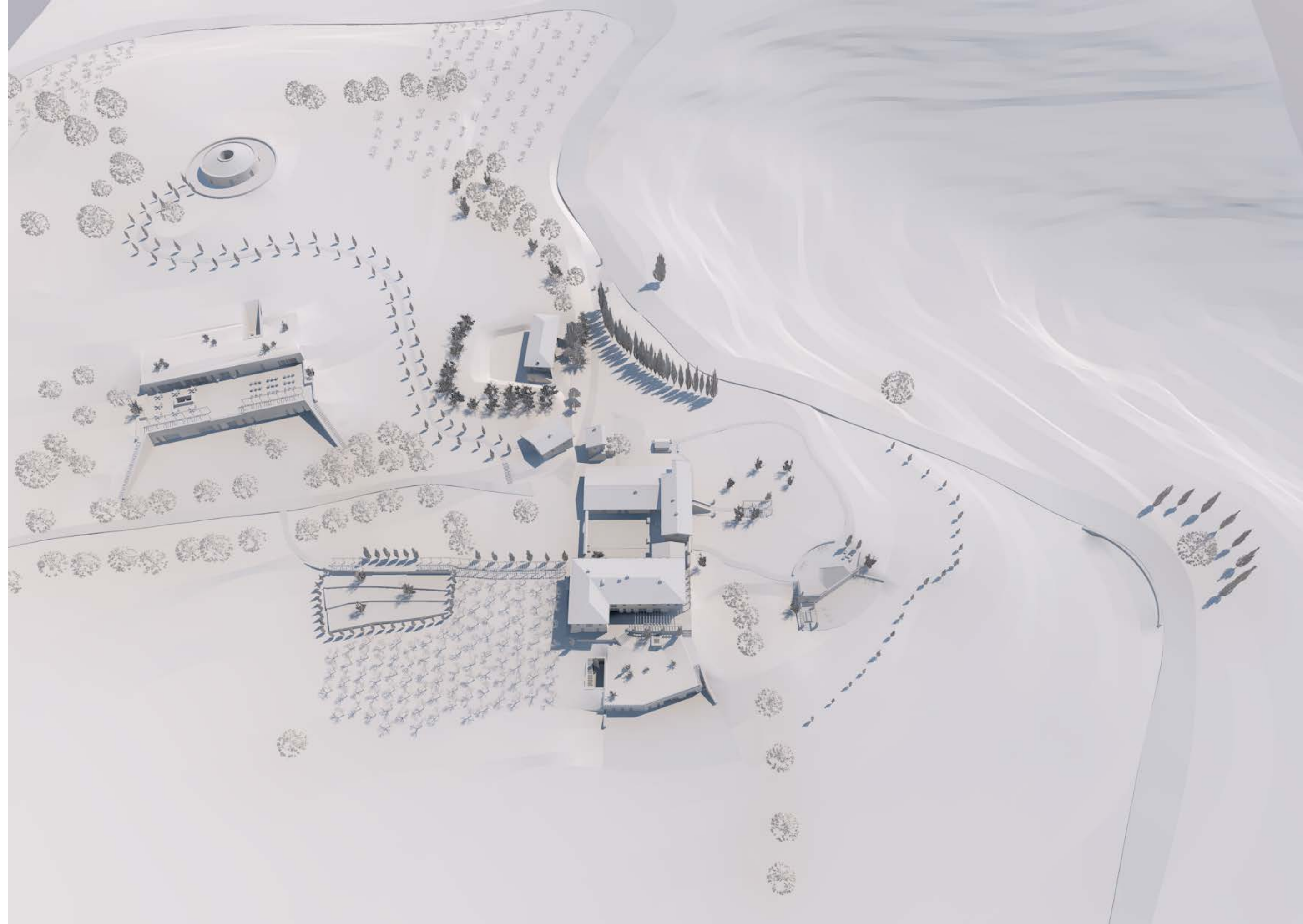
PODERE BOVOROSSO

CURRENT SITUATION



PODERE BOVOROSSO

NEW SITUATION



PODERE BOVOROSSO

MASTERPLAN ENSEMBLE



PODERE BOVOROSSO

FARMHOUSE & CANTINA



PODERE BOVOROSSO

FARMHOUSE & CANTINA



PODERE BOVOROSSO

WATER TROUGH SHED



PODERE BOVOROSSO

WATER TROUGH SHED



PODERE BOVOROSSO

BAKERY & RECEPTION BUILDING



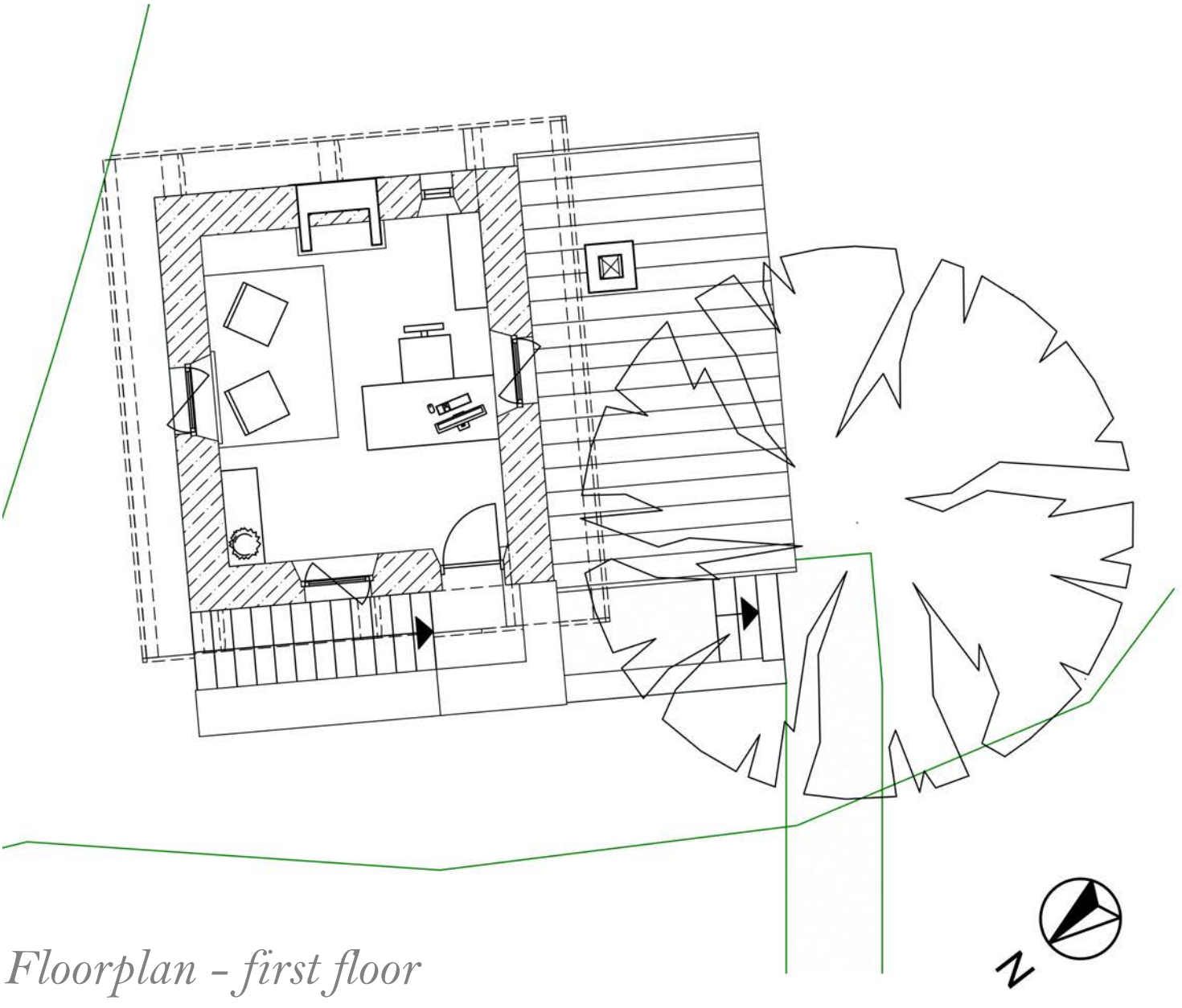
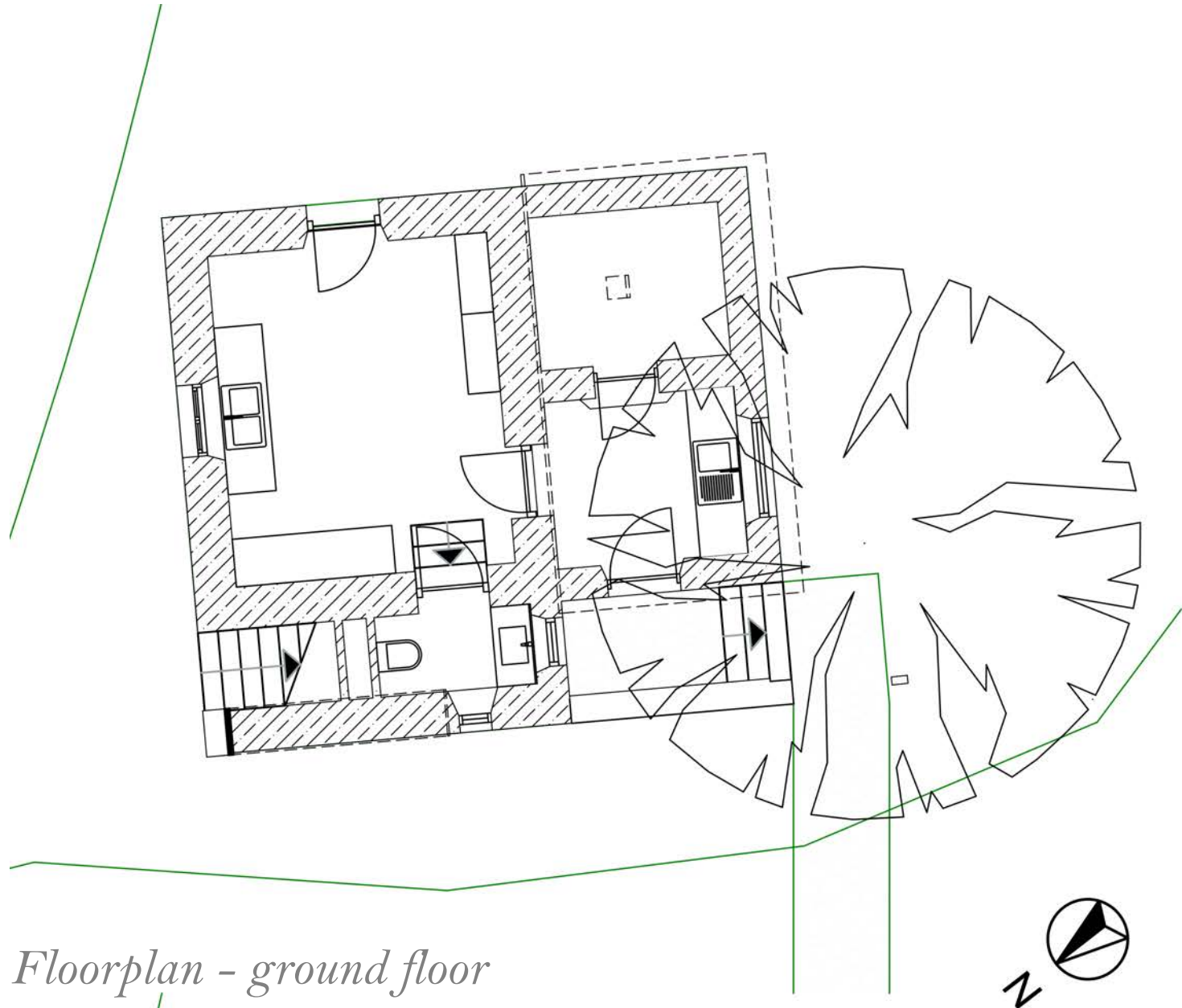
PODERE BOVOROSSO

BAKERY & RECEPTION BUILDING



PODERE BOVOROSSO

BAKERY & RECEPTION BUILDING



PODERE BOVOROSSO

STORE & OFFICE BUILDING



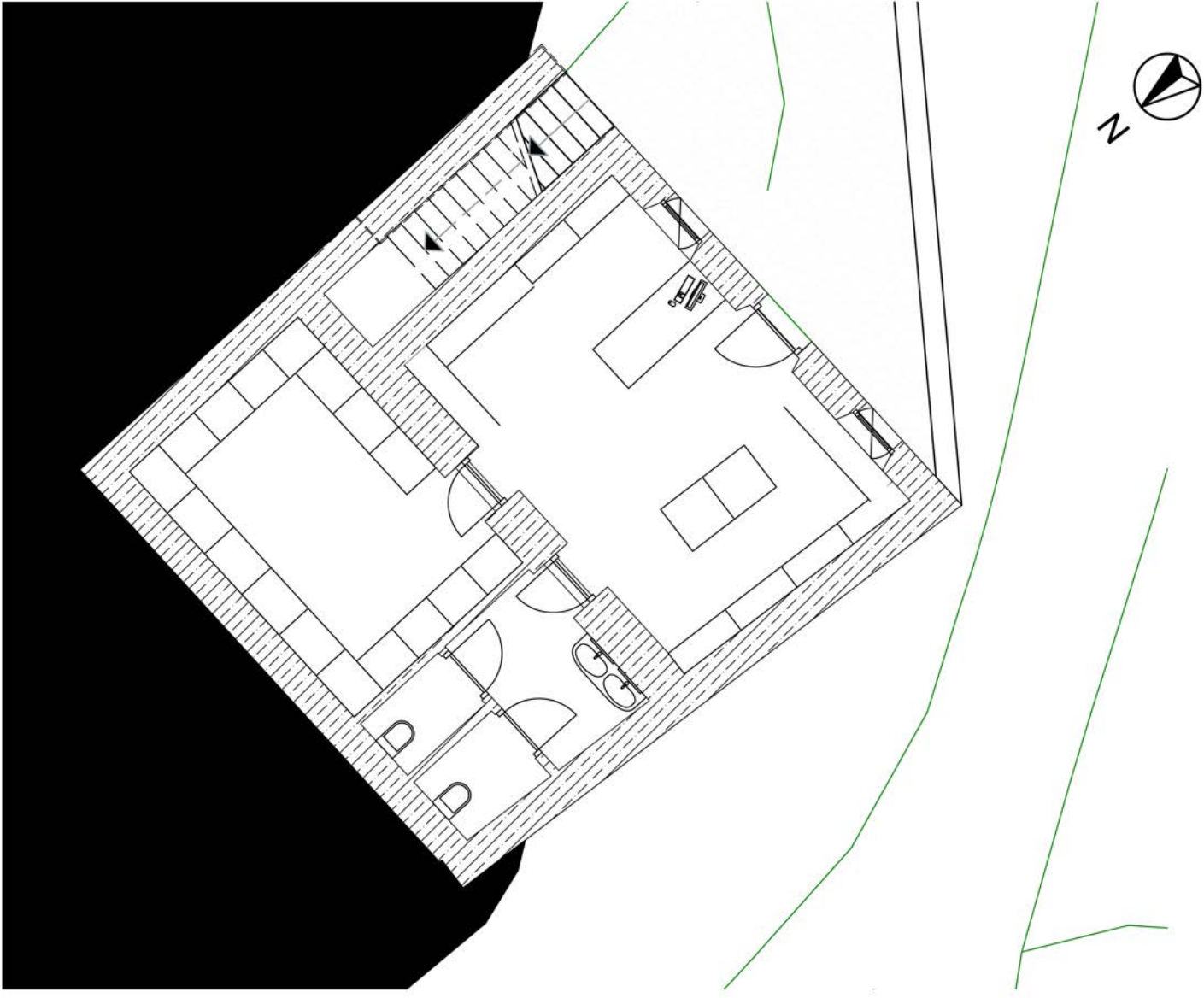
PODERE BOVOROSSO

STORE & OFFICE BUILDING

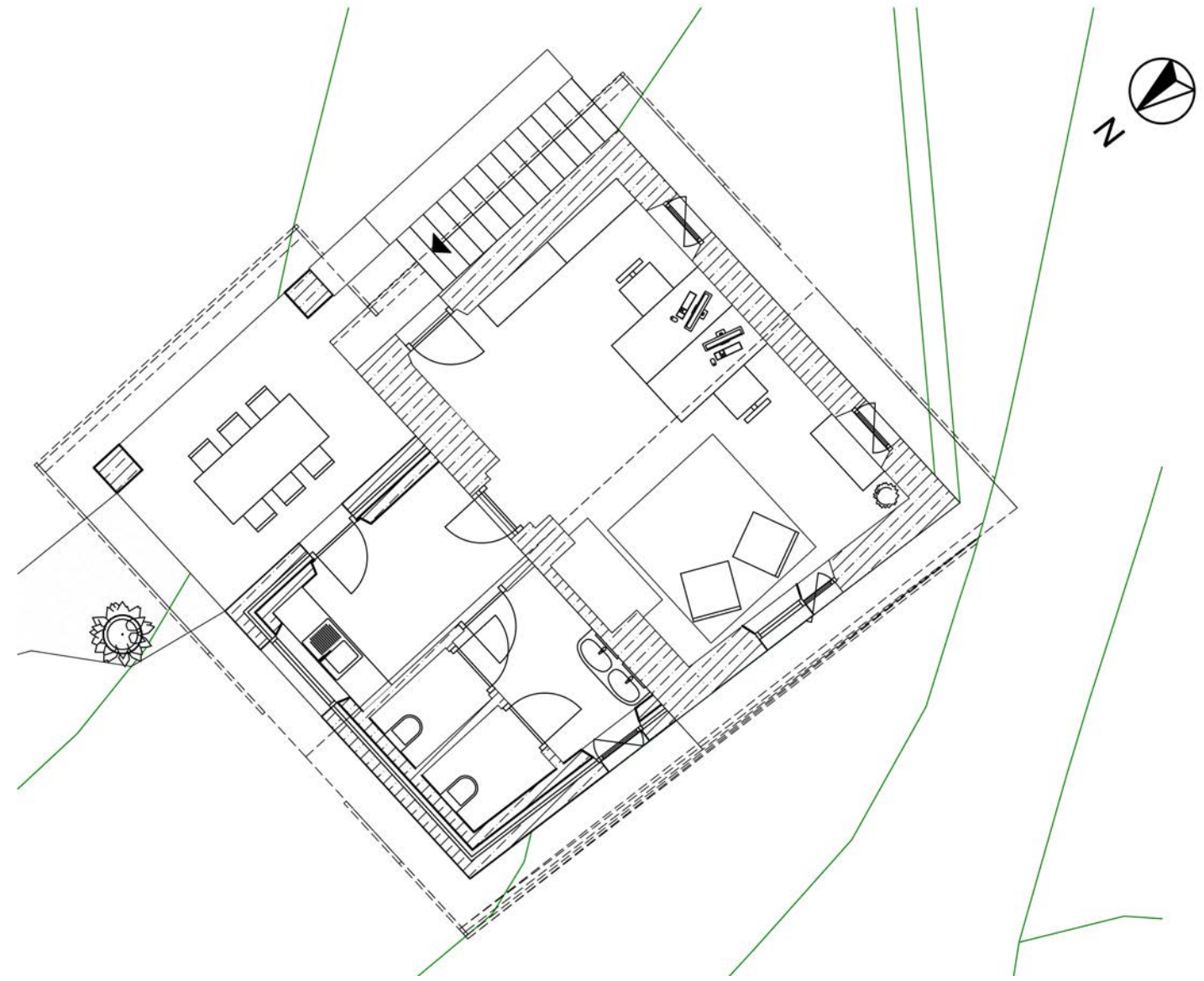


PODERE BOVOROSSO

STORE & OFFICE BUILDING



Floorplan - ground floor



Floorplan - first floor

PODERE BOVOROSSO

APARTMENT BUILDING



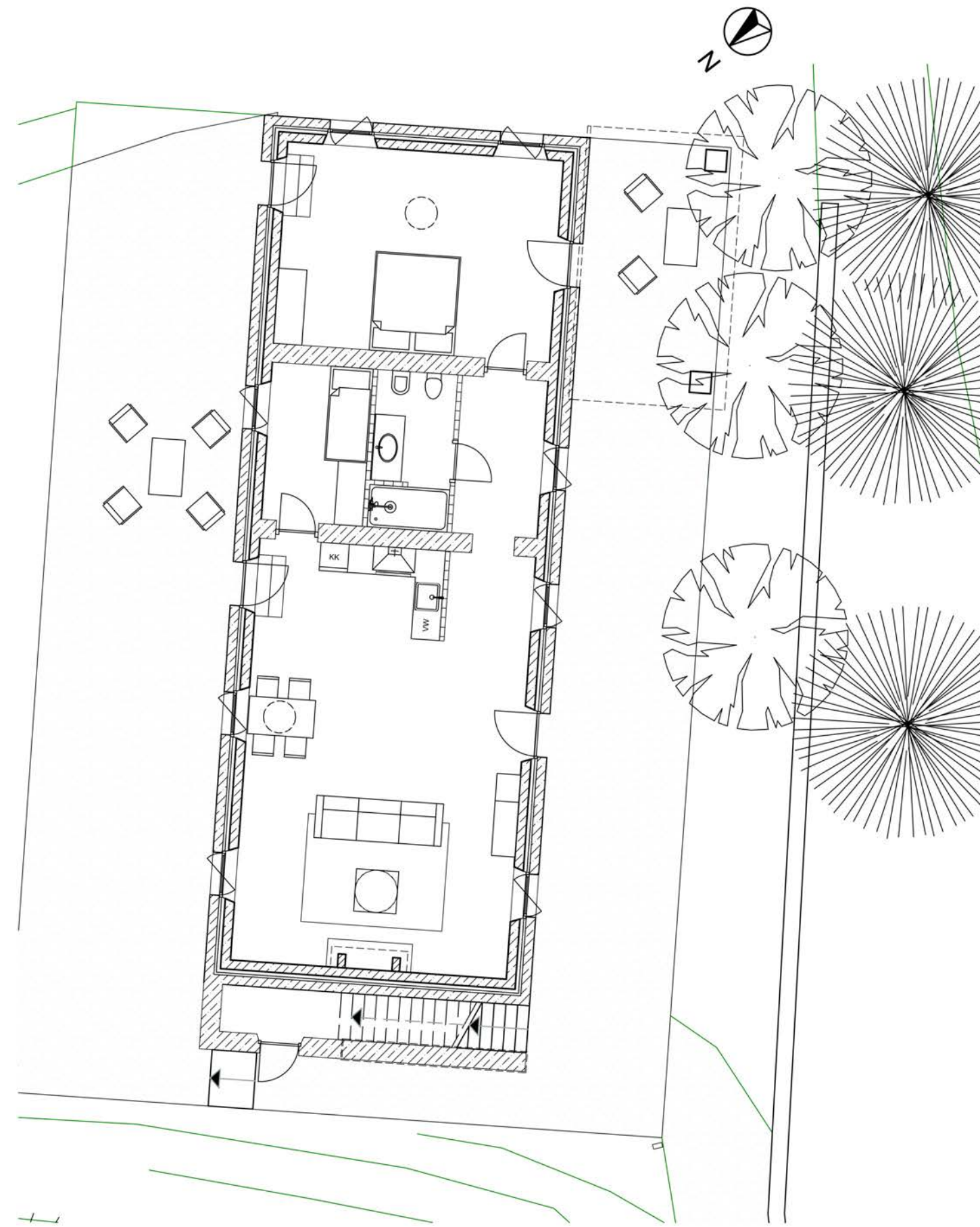
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APARTMENT BUILDING

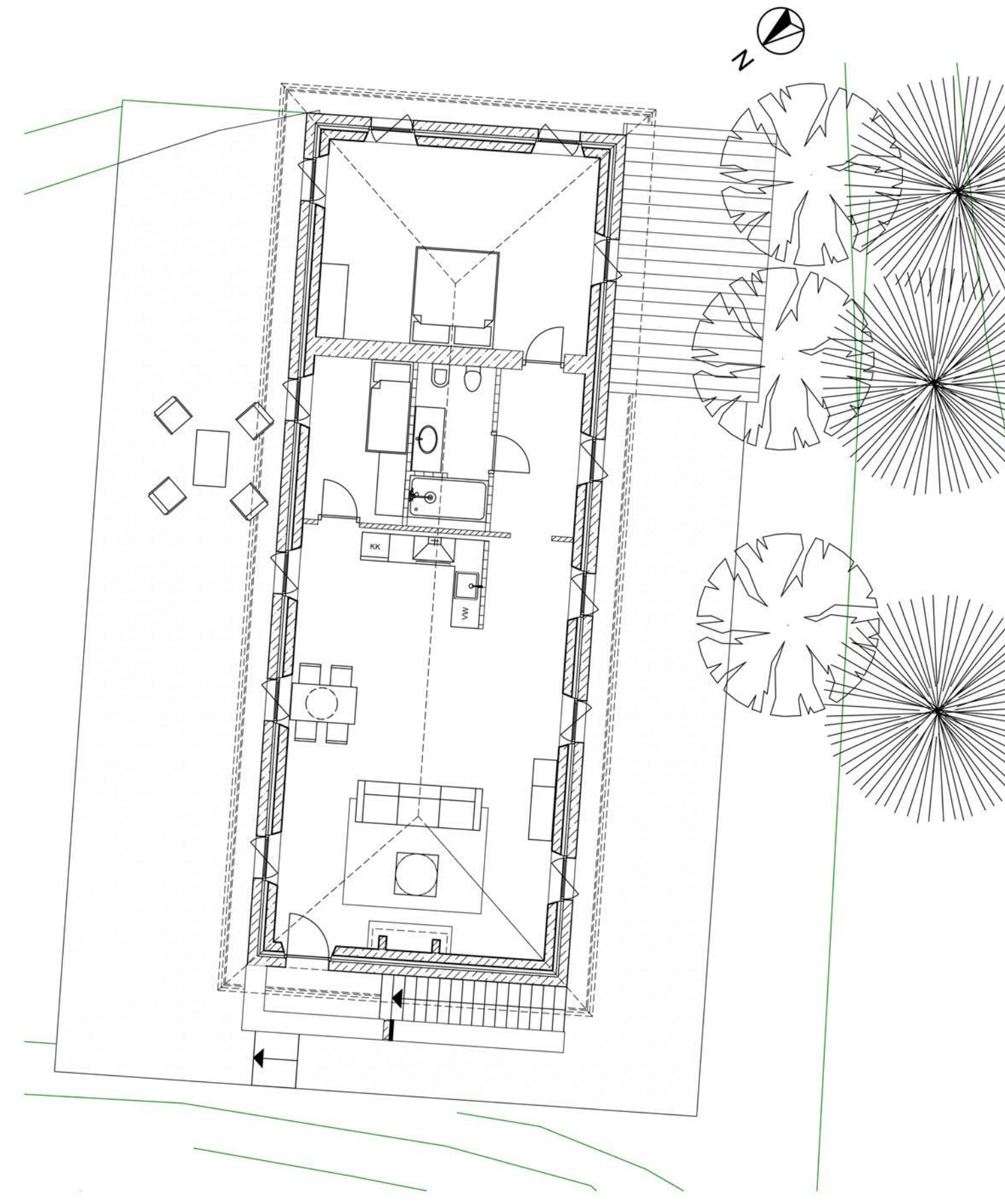


PODERE BOVOROSSO

APARTMENT BUILDING



Floorplan - ground floor



Floorplan - first floor

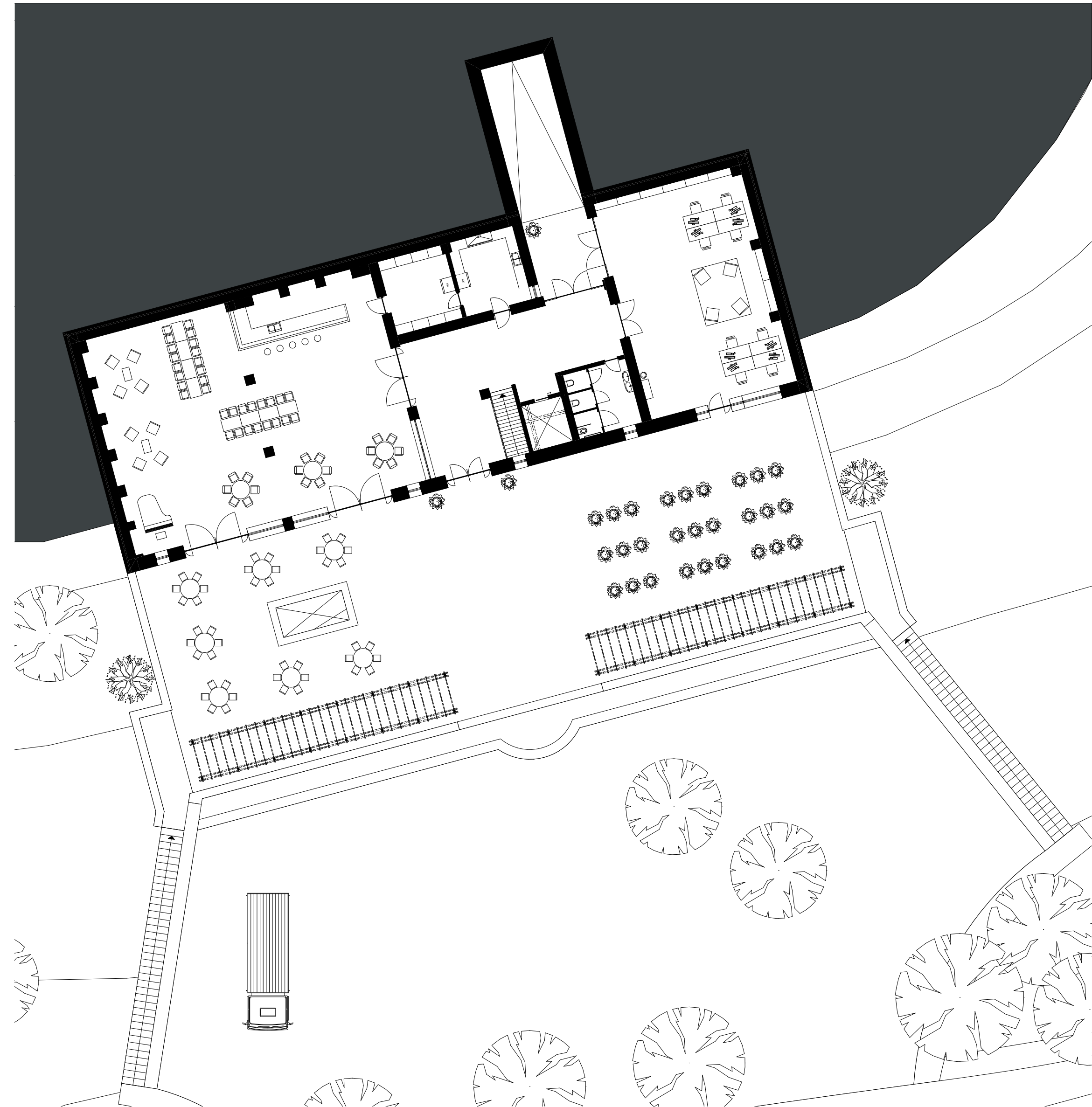
PODERE BOVOROSSO

WINERY

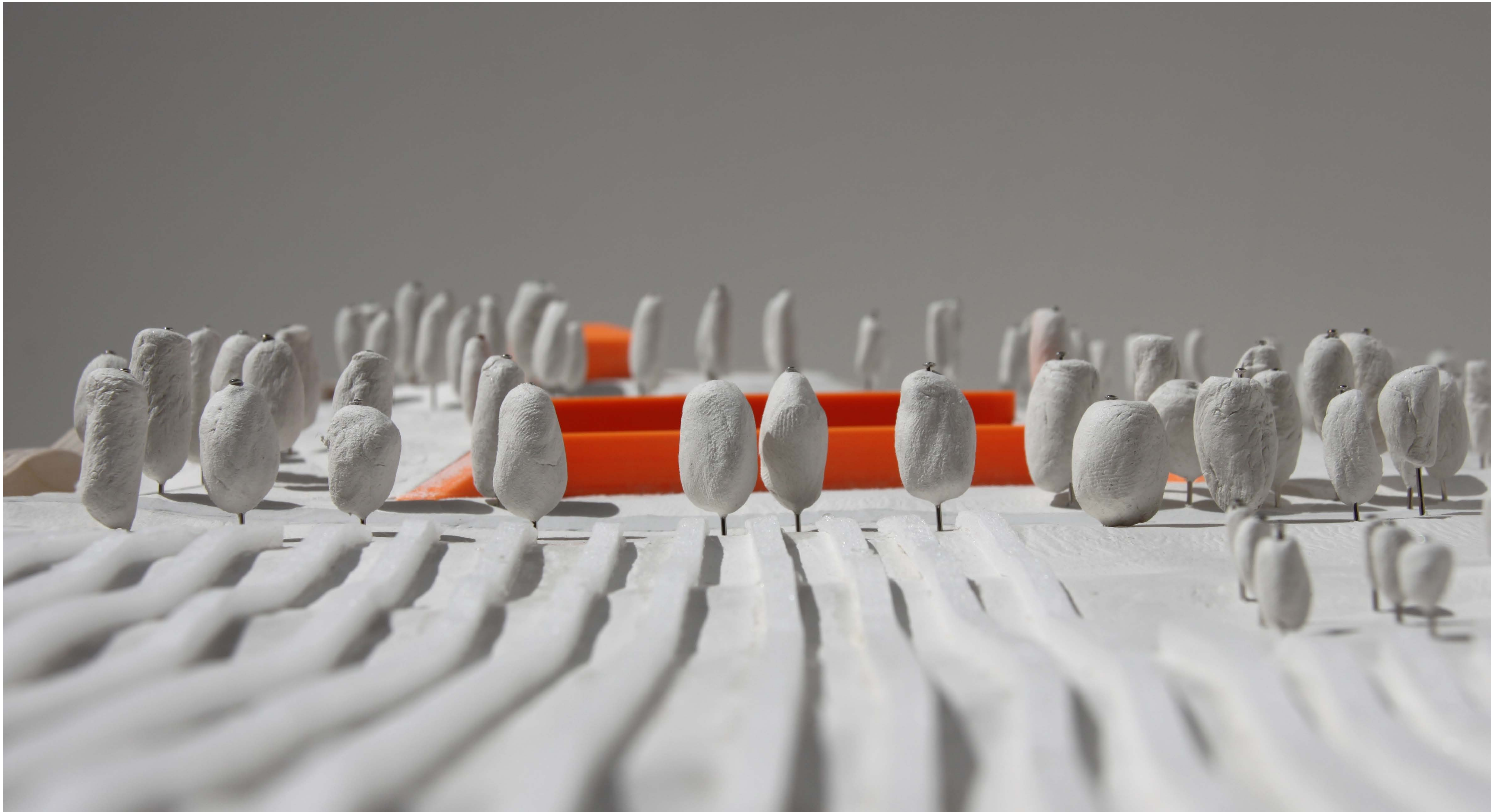


PODERE BOVOROSSO

WINERY



Floorplan - first floor



PODERE BOVOROSSO

PANORAMA WELL



PODERE BOVOROSSO

EXHIBITION TUNNEL





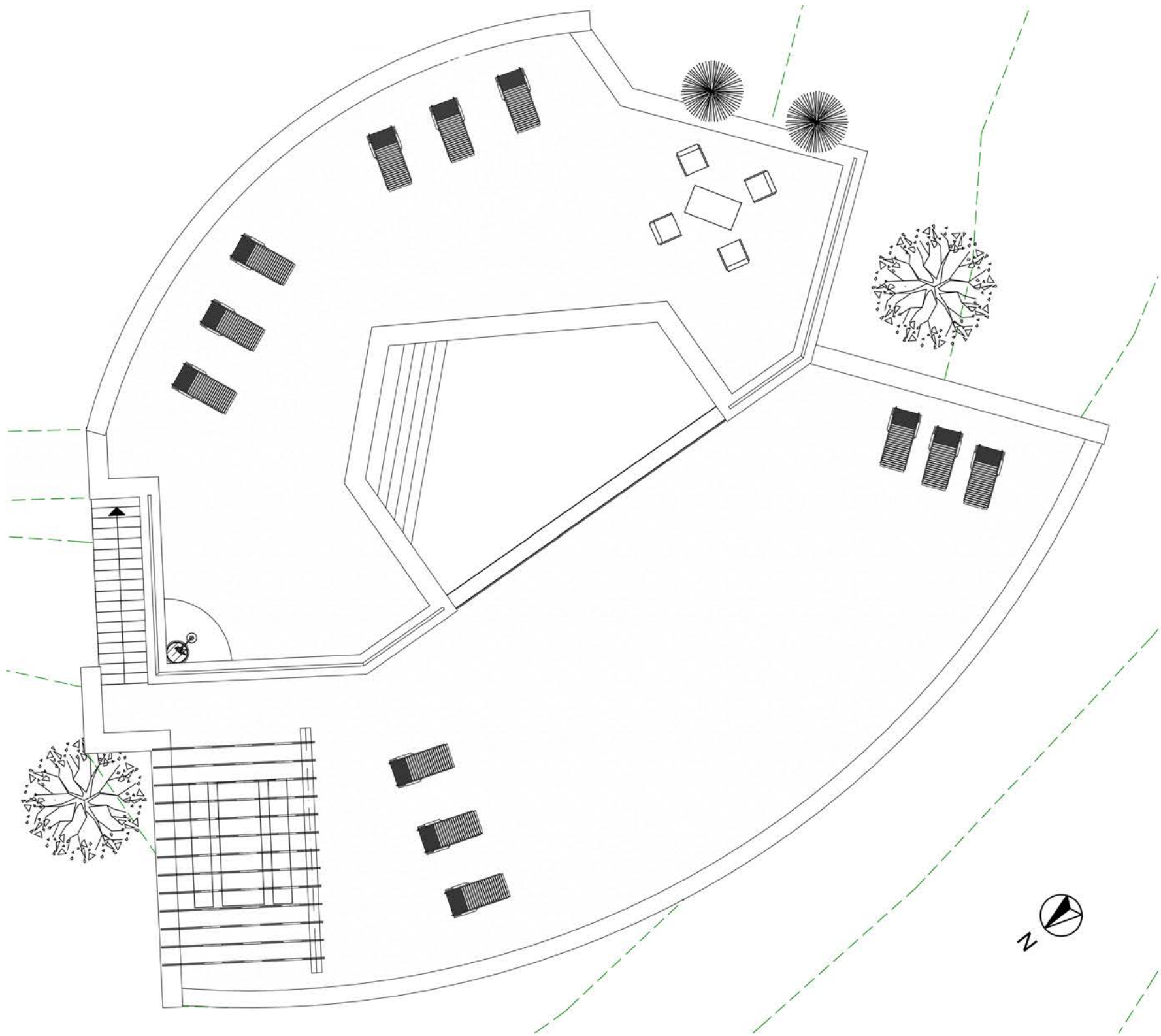
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SWIMMING POOL

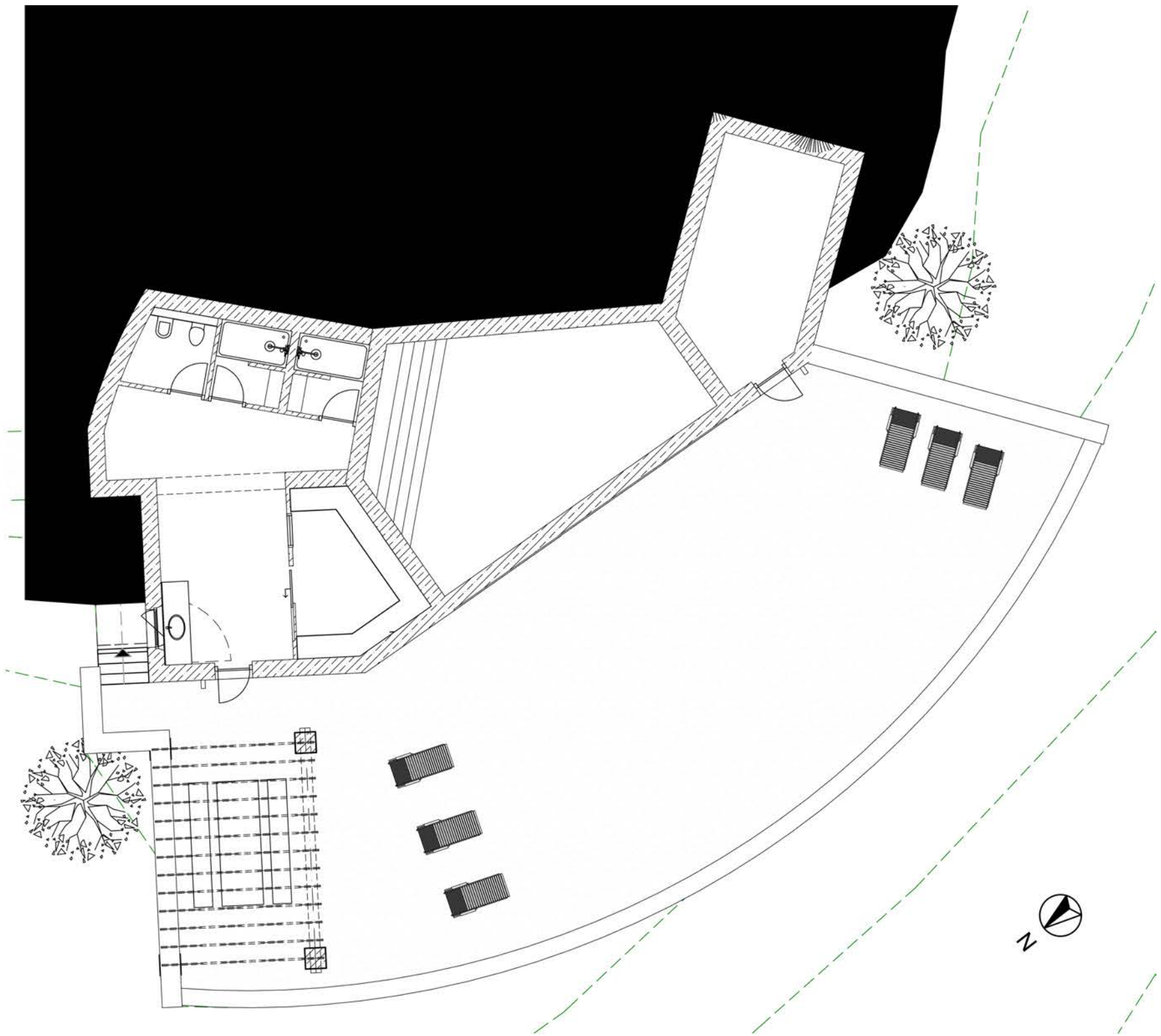


PODERE BOVOROSSO

POOLHOUSE



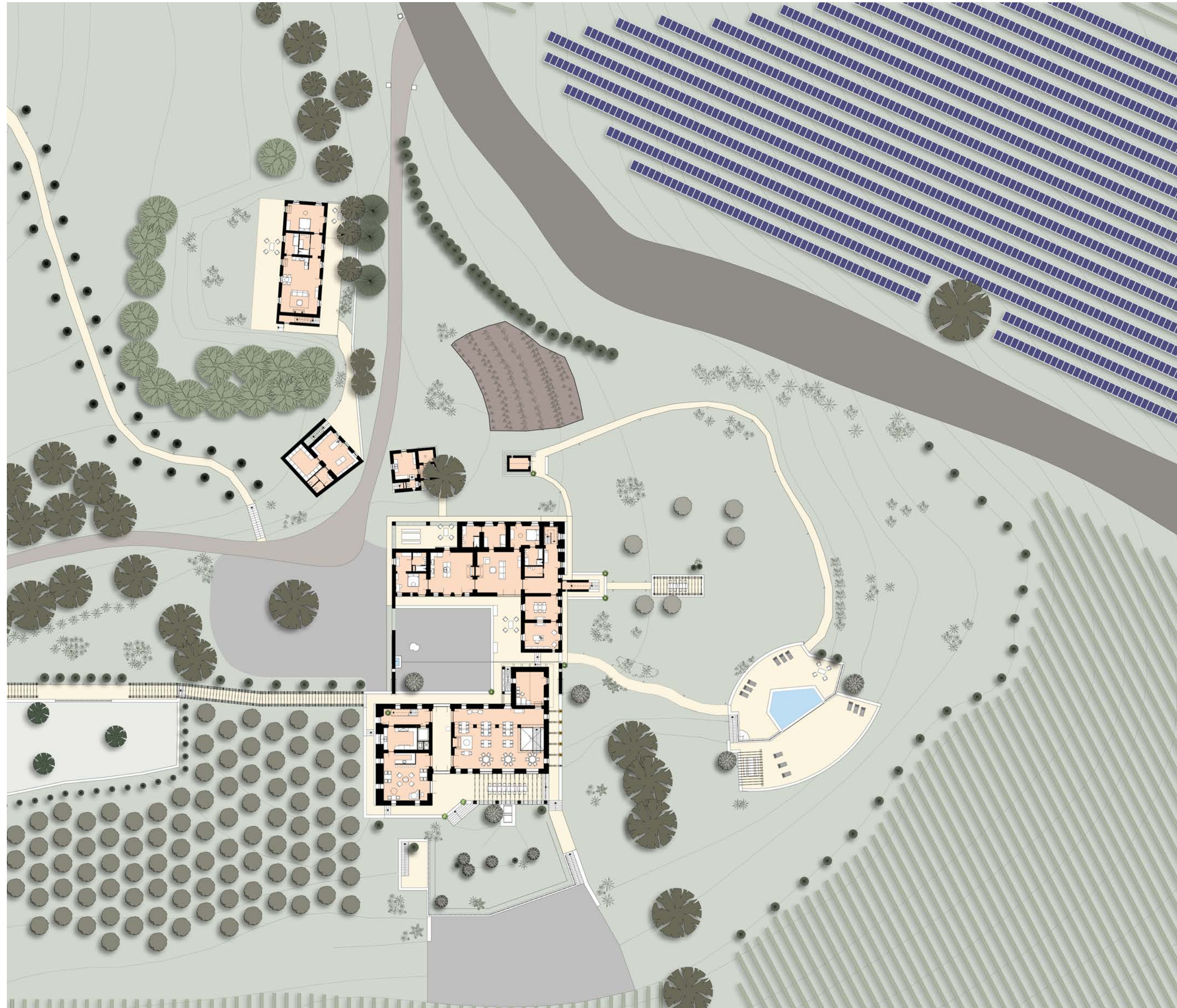
Floorplan - ground floor



Floorplan - basement (-1)

PODERE BOVOROSSO

MASTERPLAN ENSEMBLE



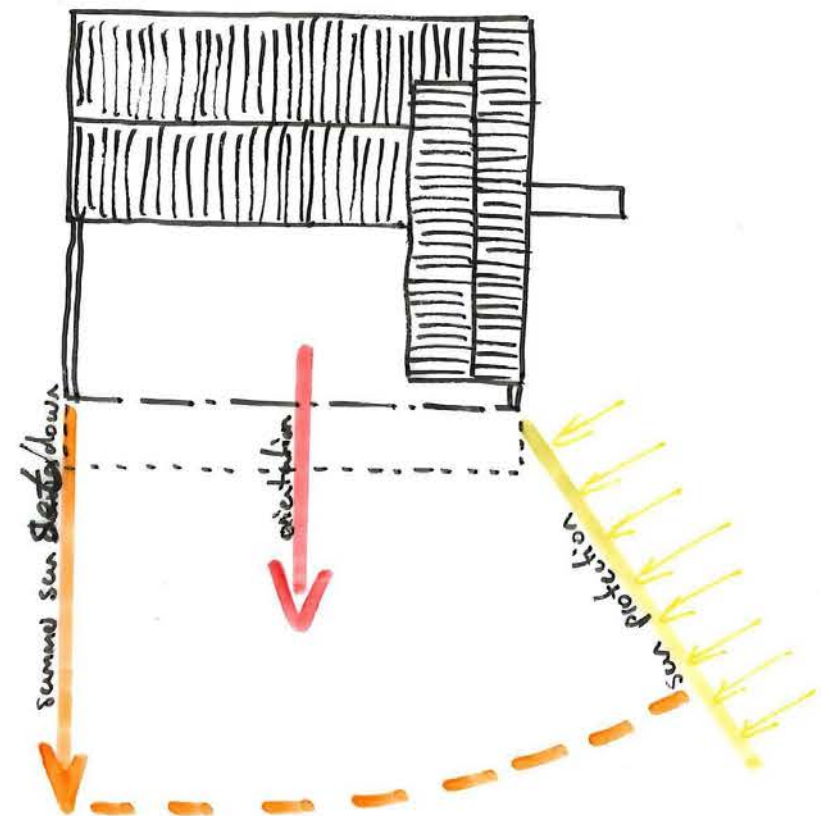
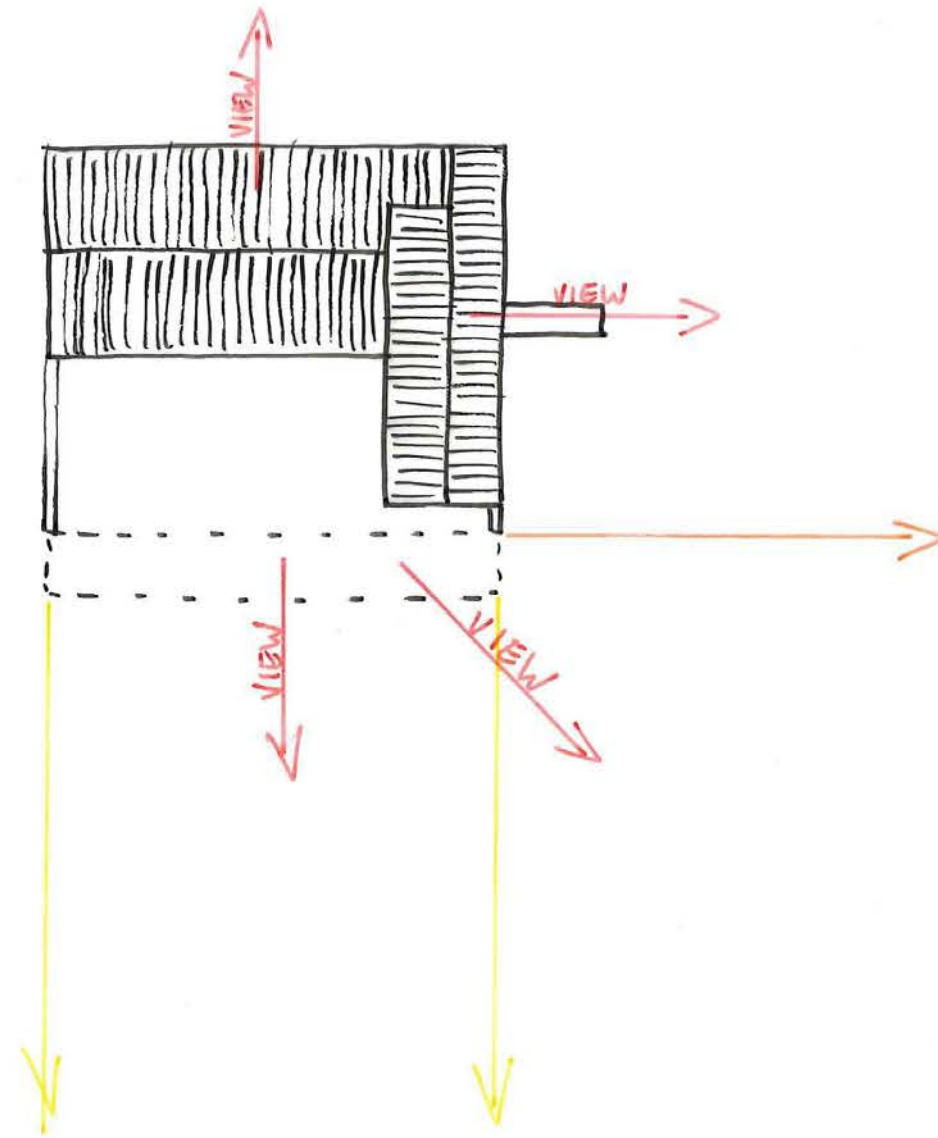




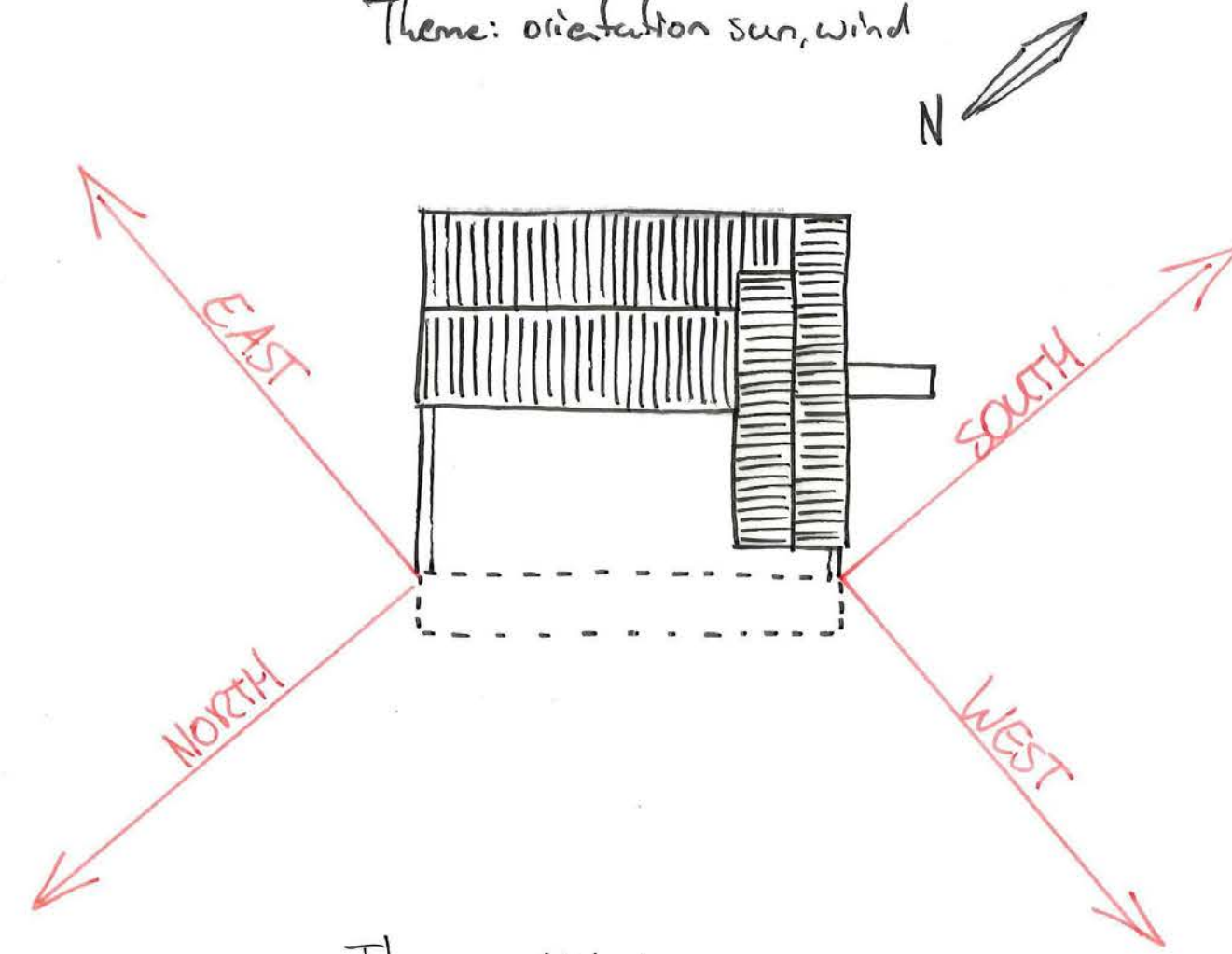
PODERE BOVOROSSO

STARTING POINTS

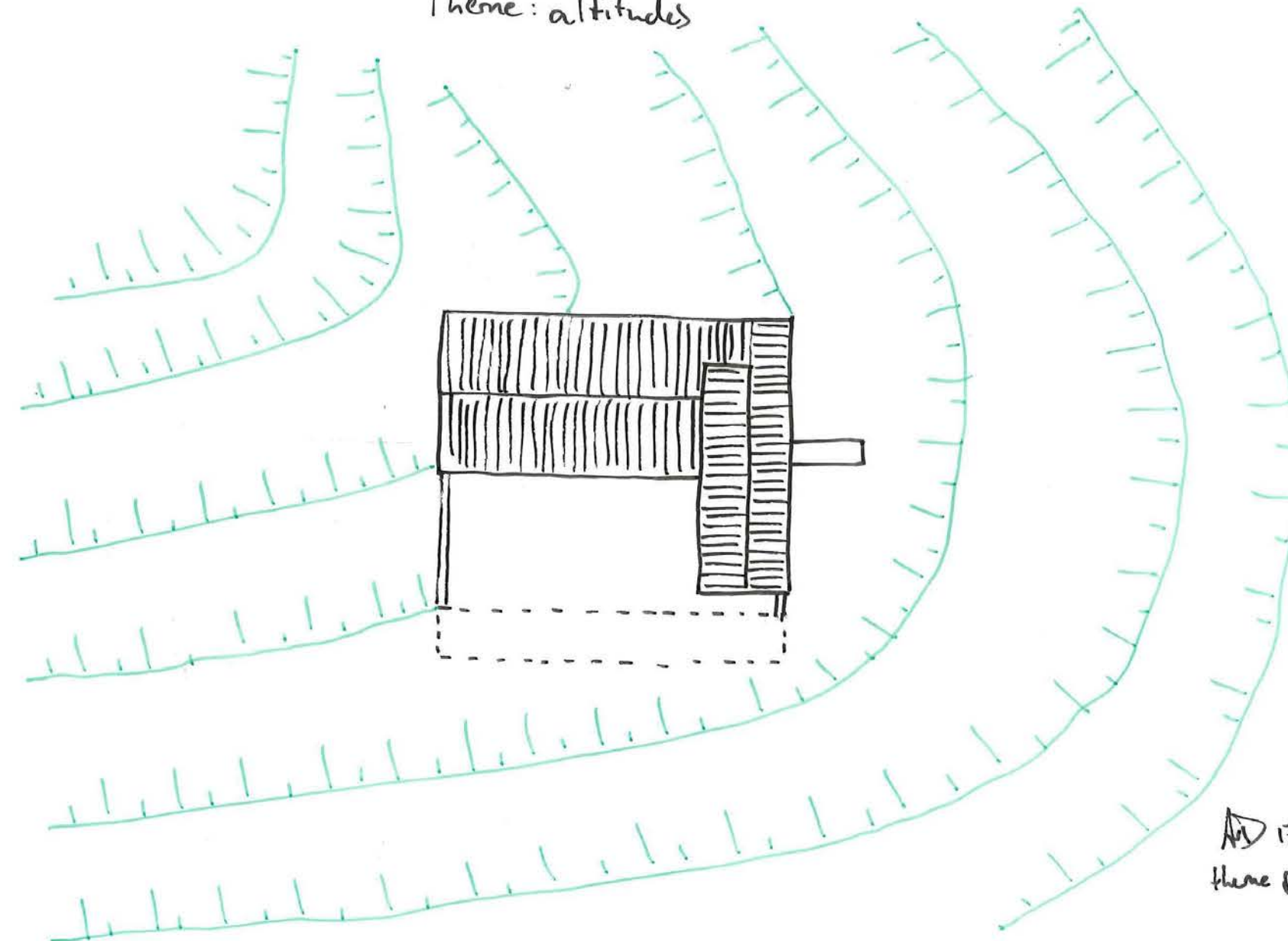
Theme: view



Theme: orientation sun, wind



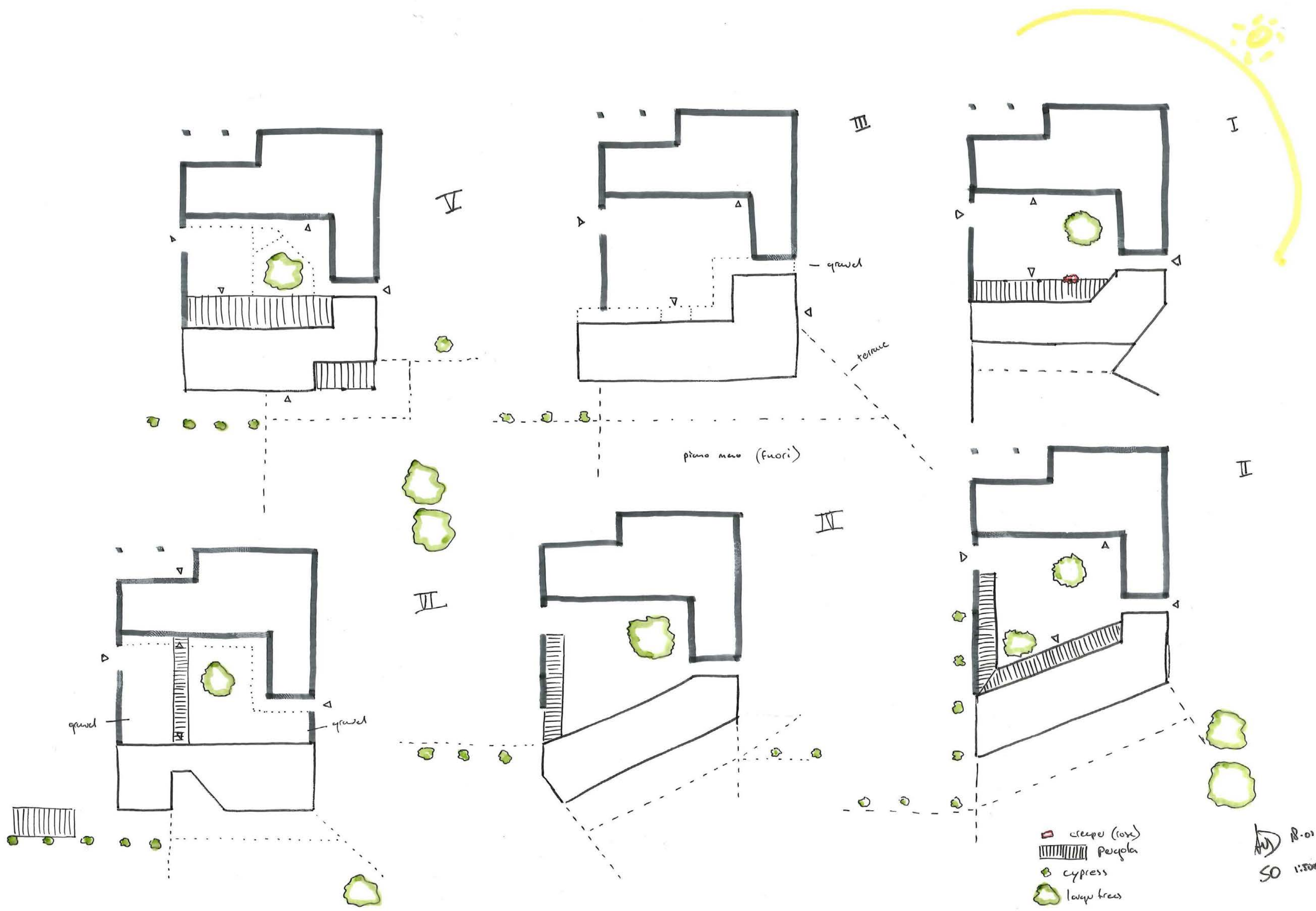
Theme: altitudes



AD 17-01
here palette

PODERE BOVOROSSO

DESIGN STUDIES



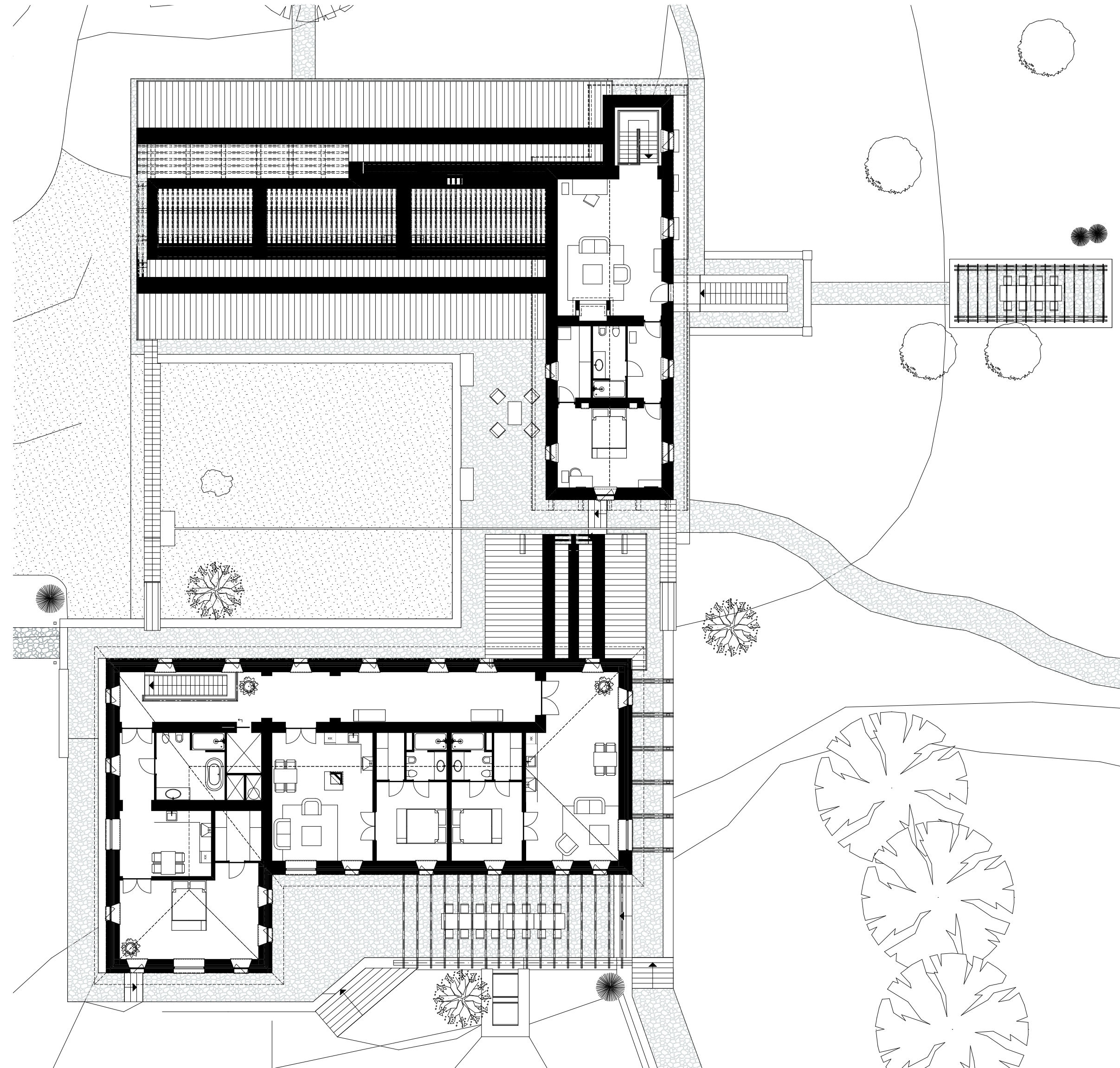
PODERE BOVOROSSO

GROUND FLOOR



PODERE BOVOROSSO

FIRST FLOOR







PODERE BOVOROSSO

GROUND FLOOR



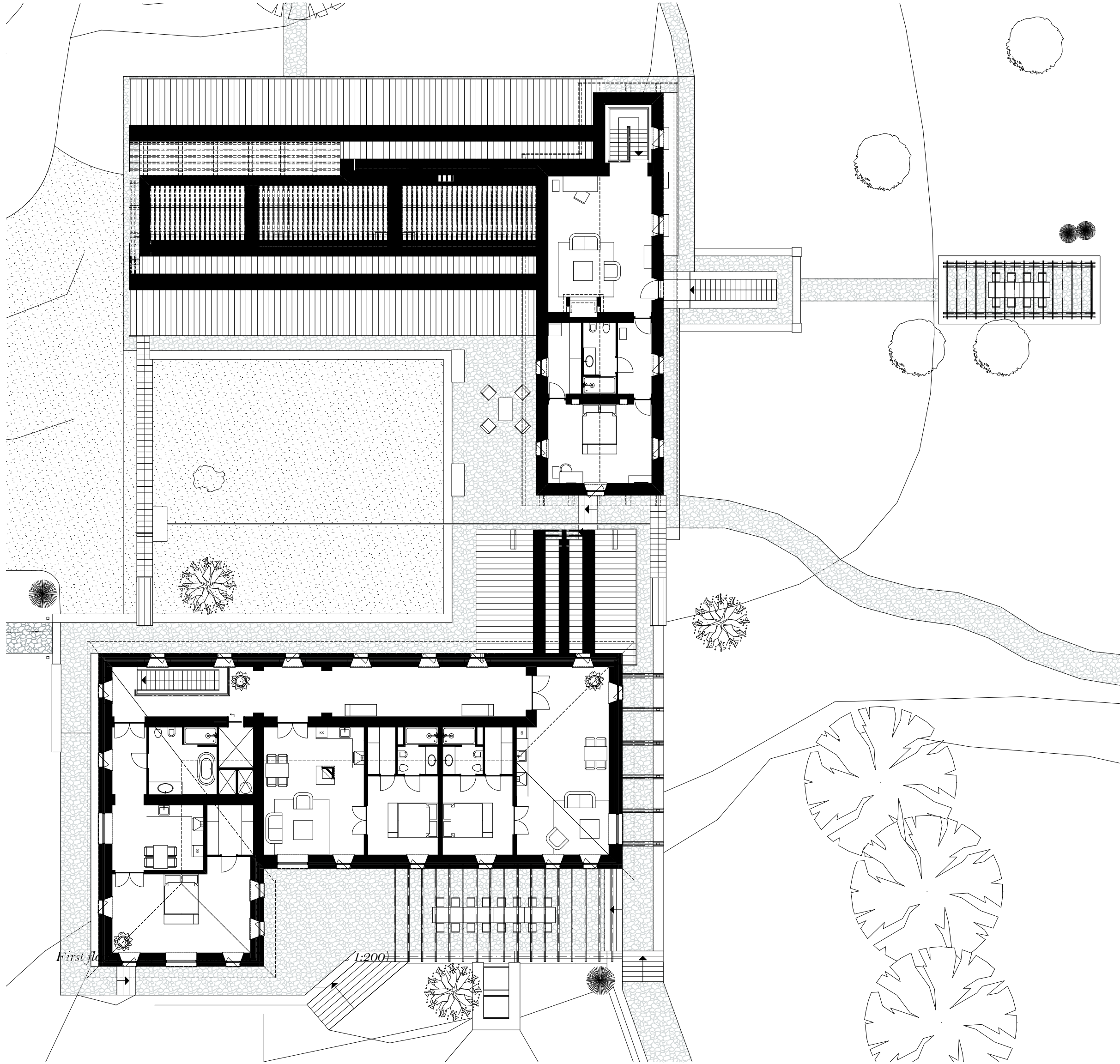
PODERE BOVOROSSO

CANTINA



PODERE BOVOROSSO

FIRST FLOOR



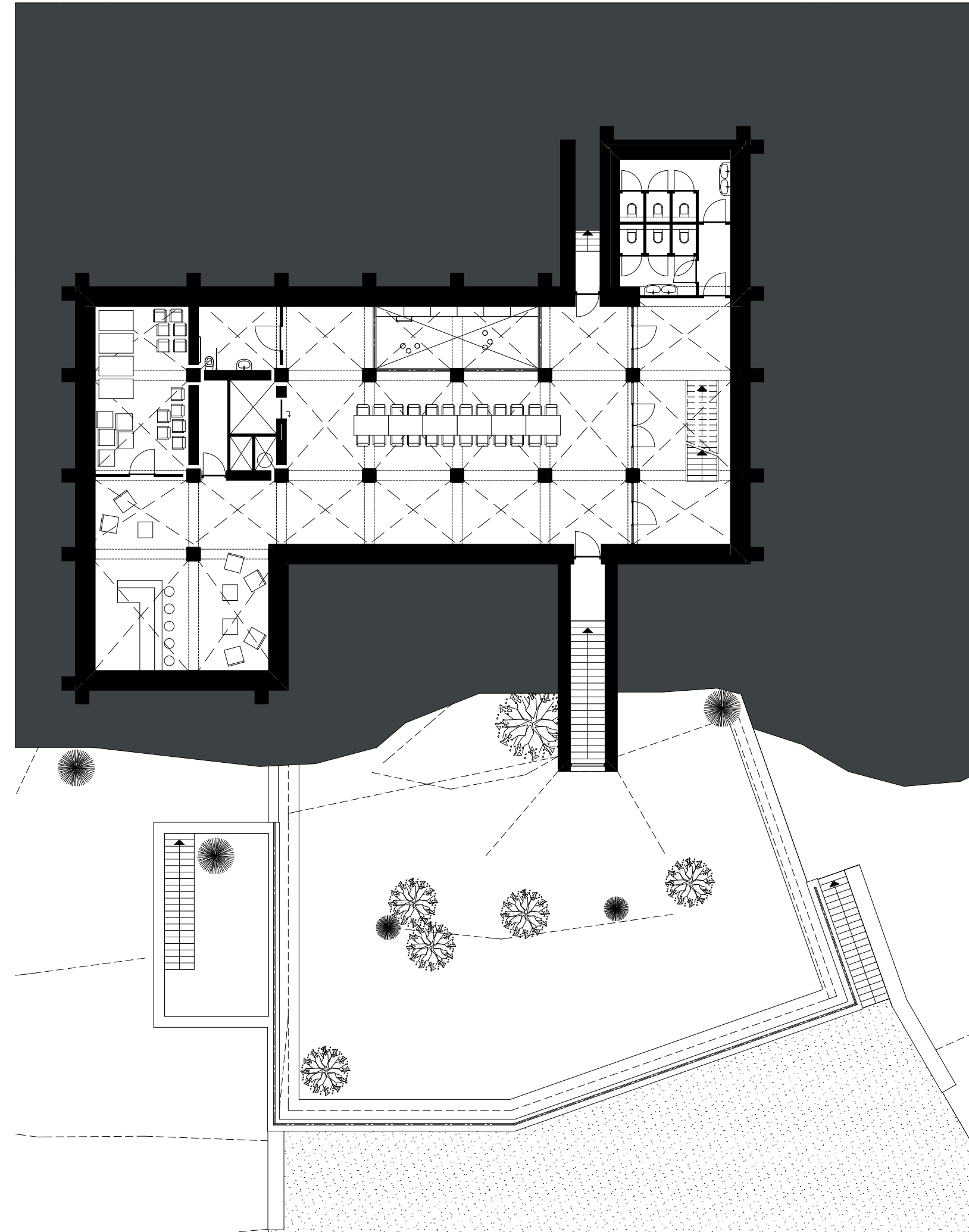
PODERE BOVOROSSO

CORRIDOR



PODERE BOVOROSSO

CELLAR



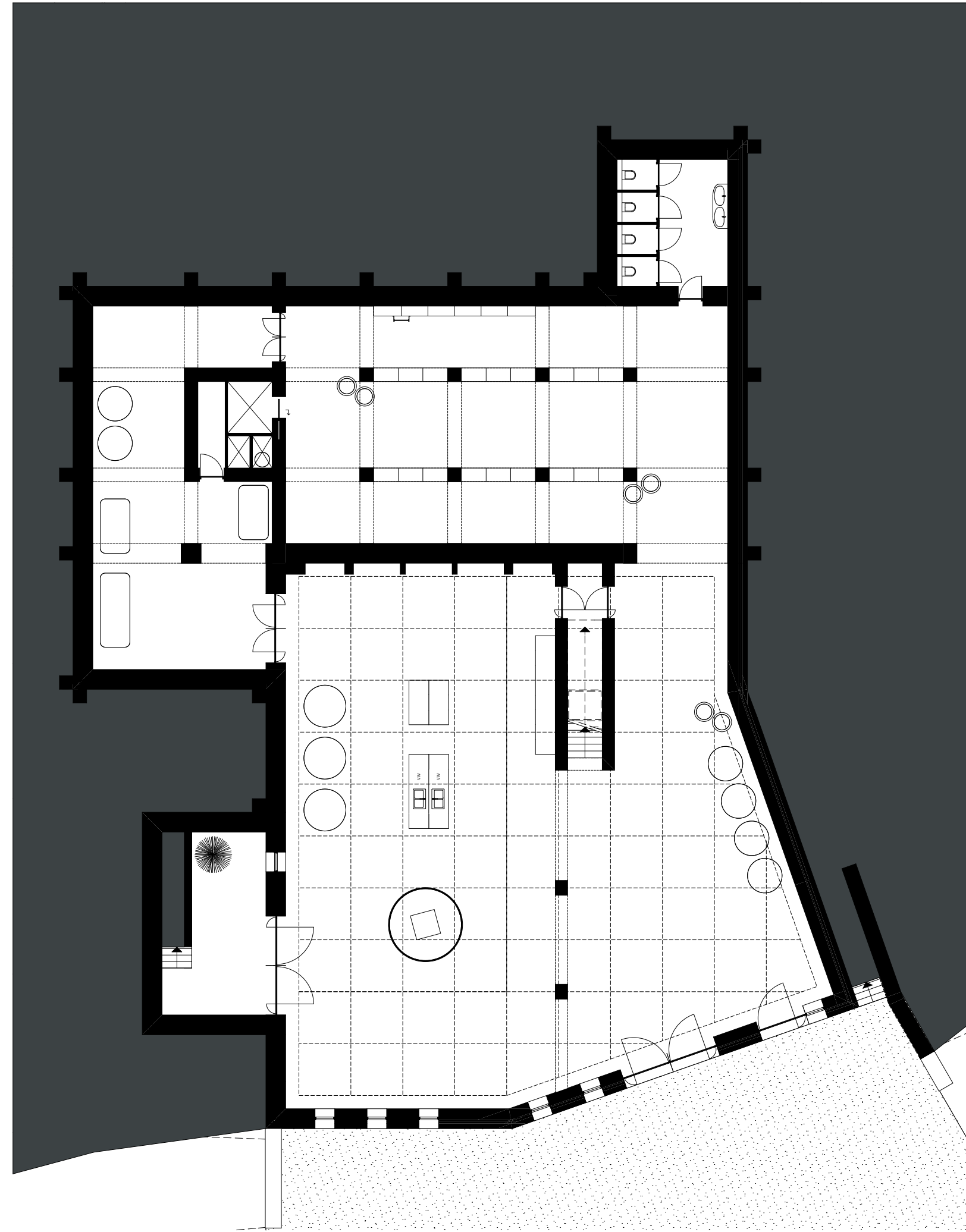
PODERE BOVOROSSO

CELLAR



PODERE BOVOROSSO

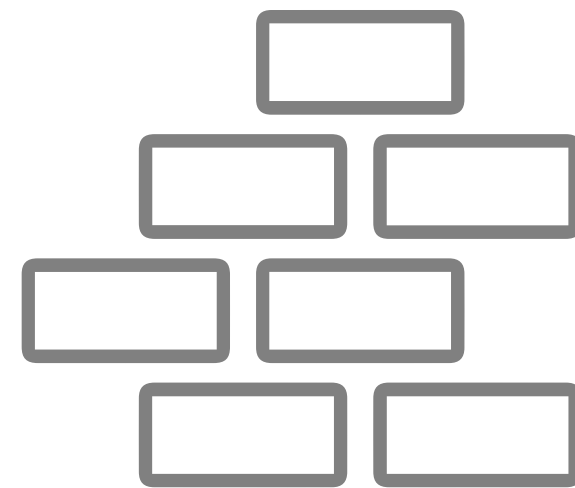
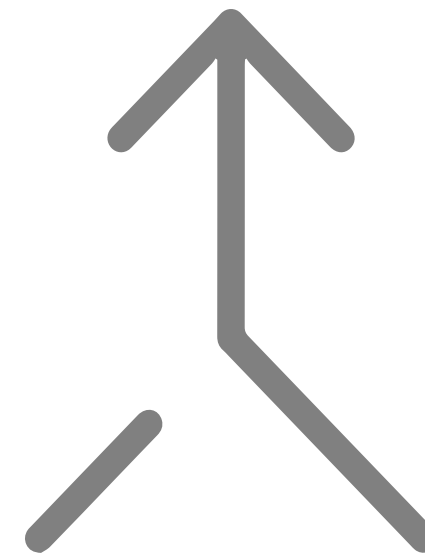
BASEMENT



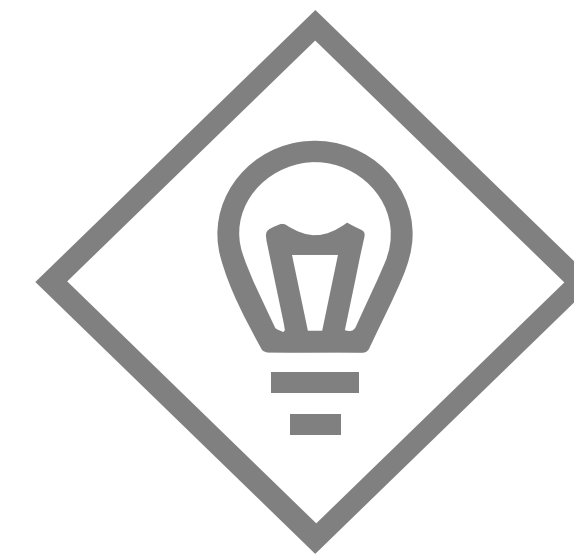
CRITICAL REGIONALISM

BETWEEN TRADITIONALISM, MODERNISM AND REGIONALISM

B O V O  R O S S O



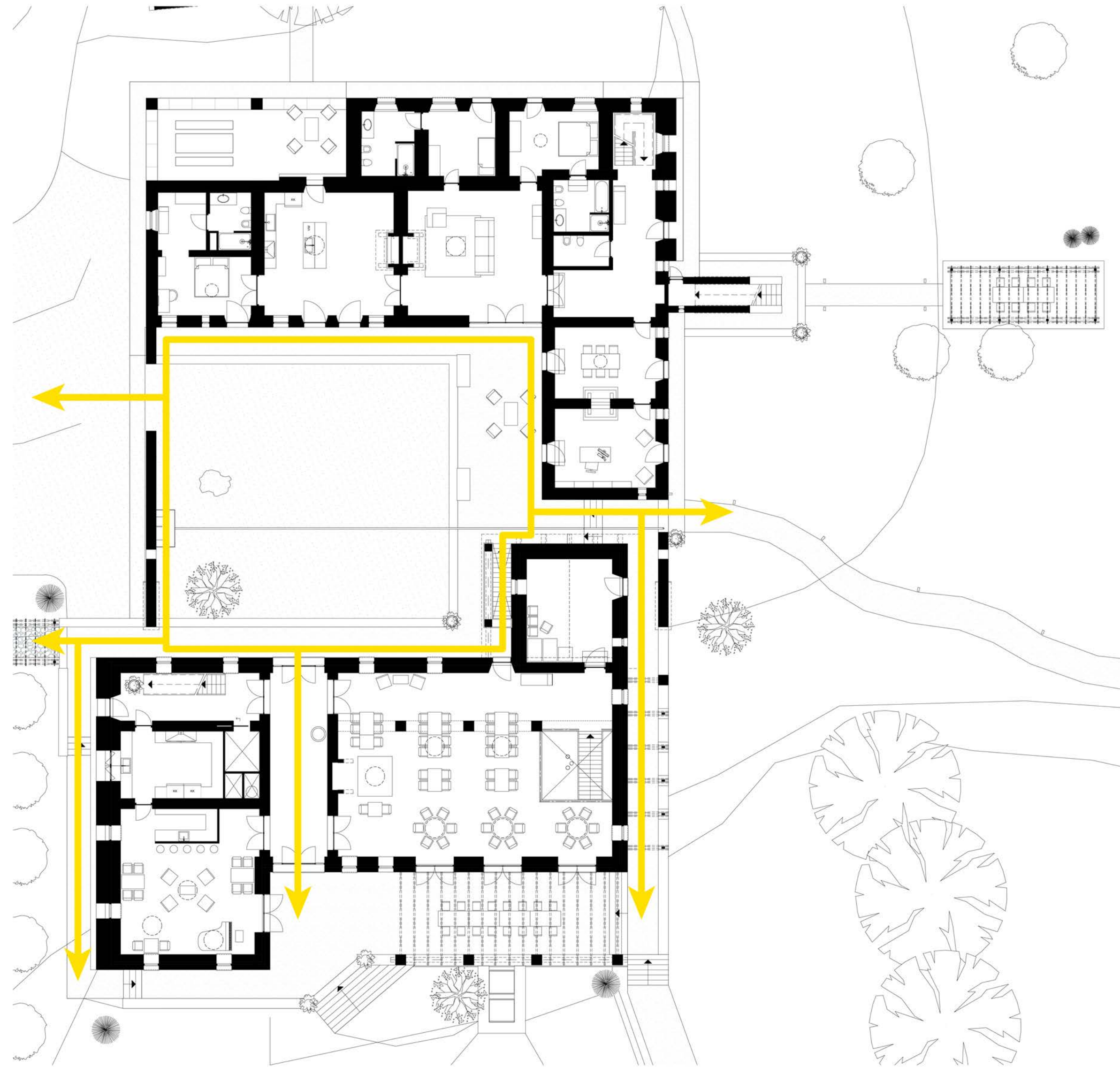
Traditional materials & techniques



Inventive new opportunities and means

PODERE BOVOROSSO

IMPLEMENTATION



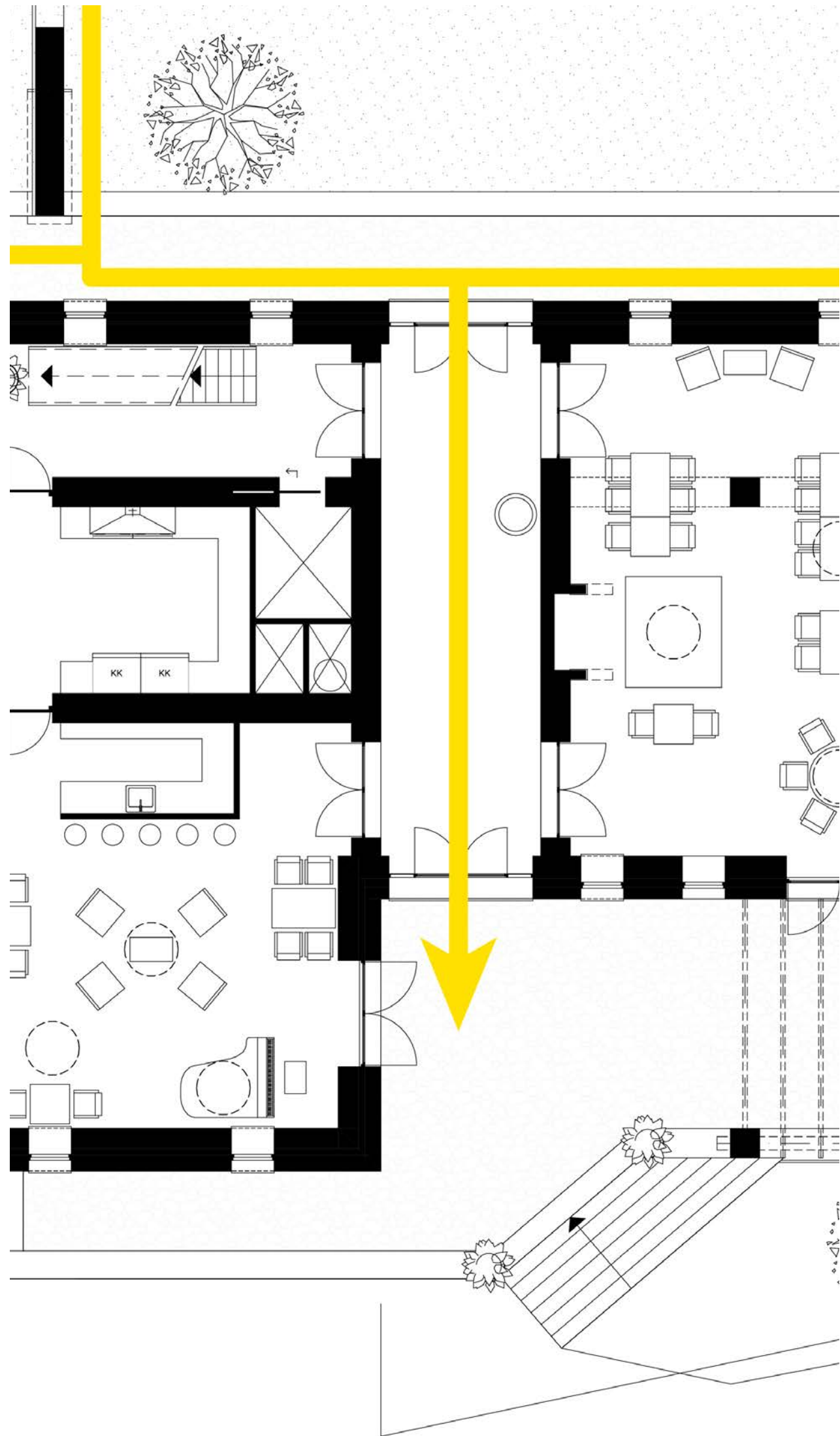
PODERE BOVOROSSO

CORRIDOR / PASSAGE



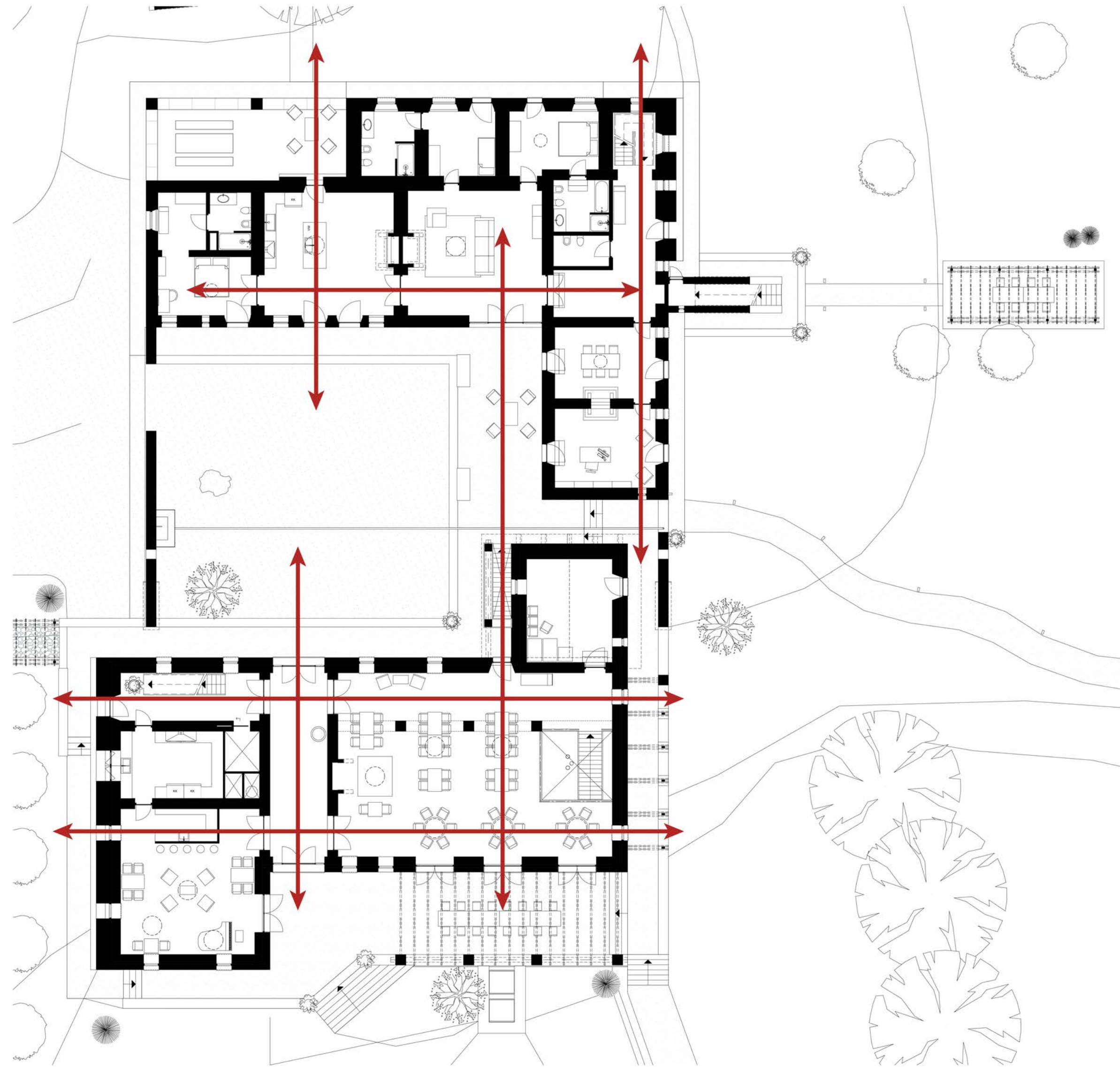
PODERE BOVOROSSO

CORRIDOR / PASSAGE



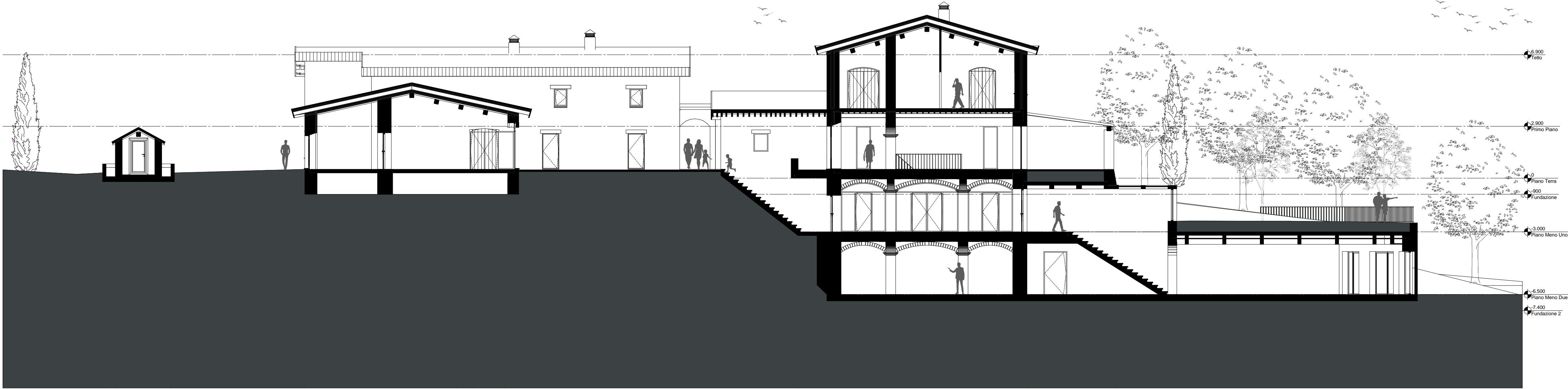
PODERE BOVOROSSO

IMPLEMENTATION



PODERE BOVOROSSO

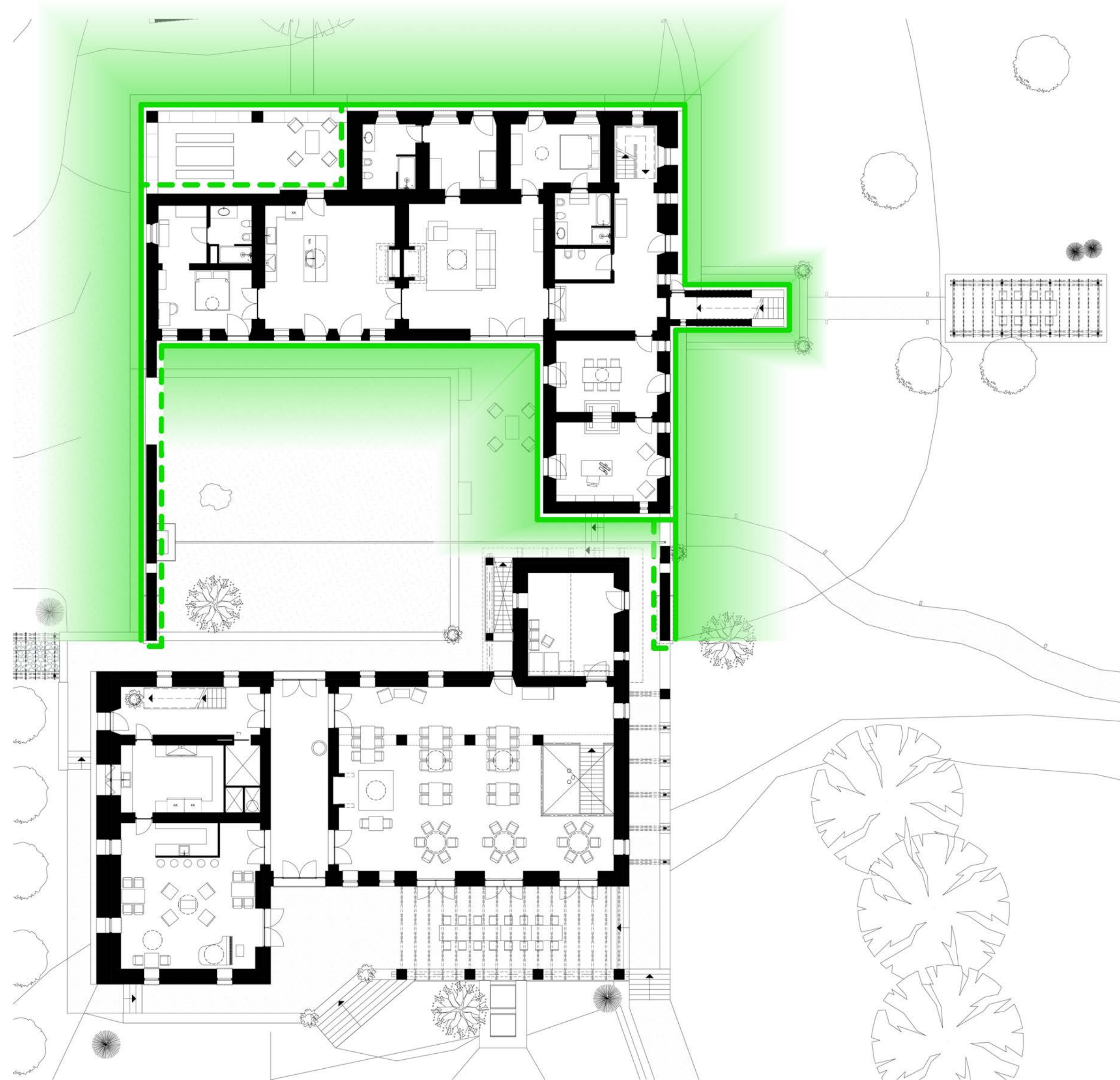
VERTICAL ENFILADE





PODERE BOVOROSSO

IMPLEMENTATION



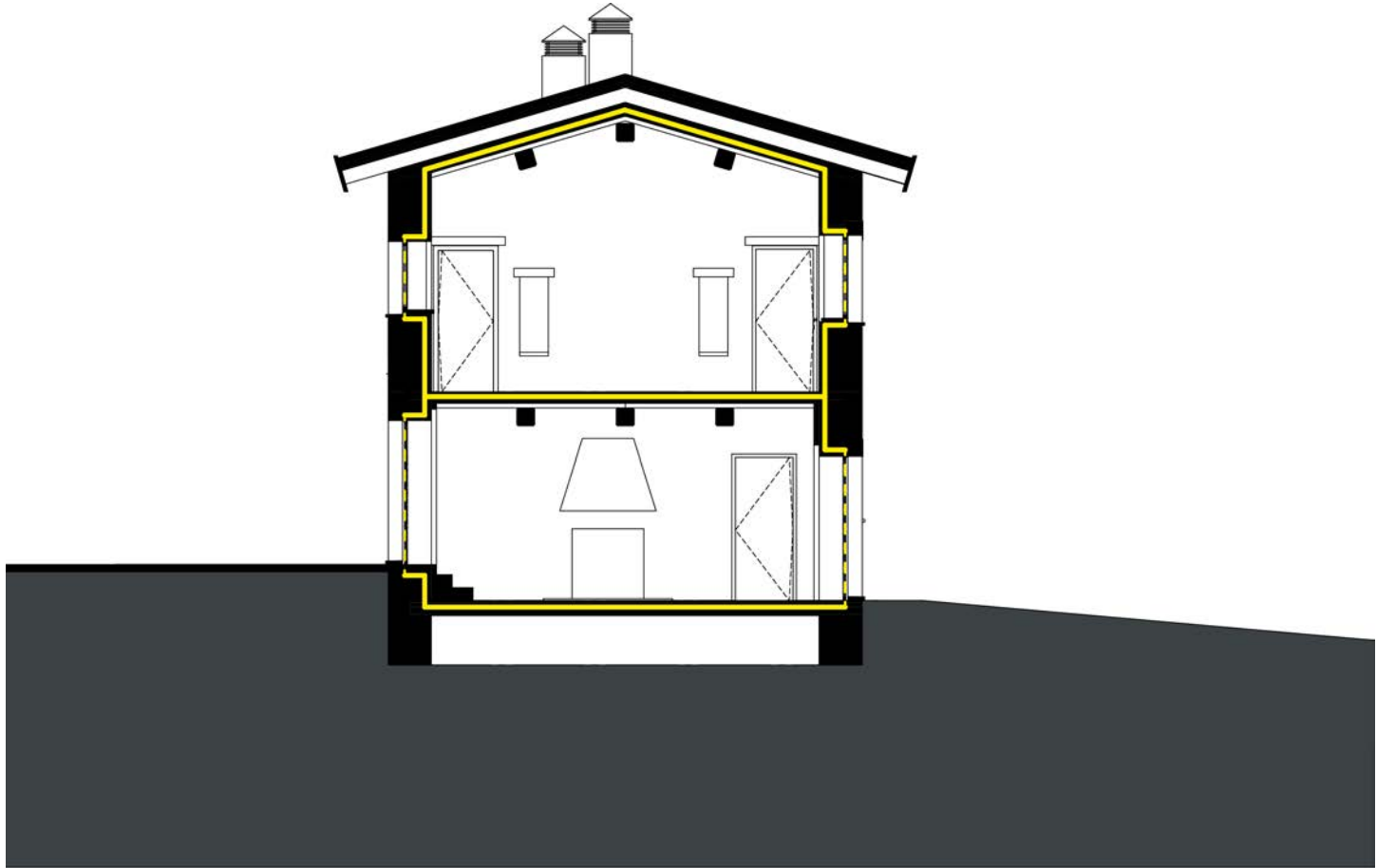
PODERE BOVOROSSO

VINCOLO AMBIENTALE

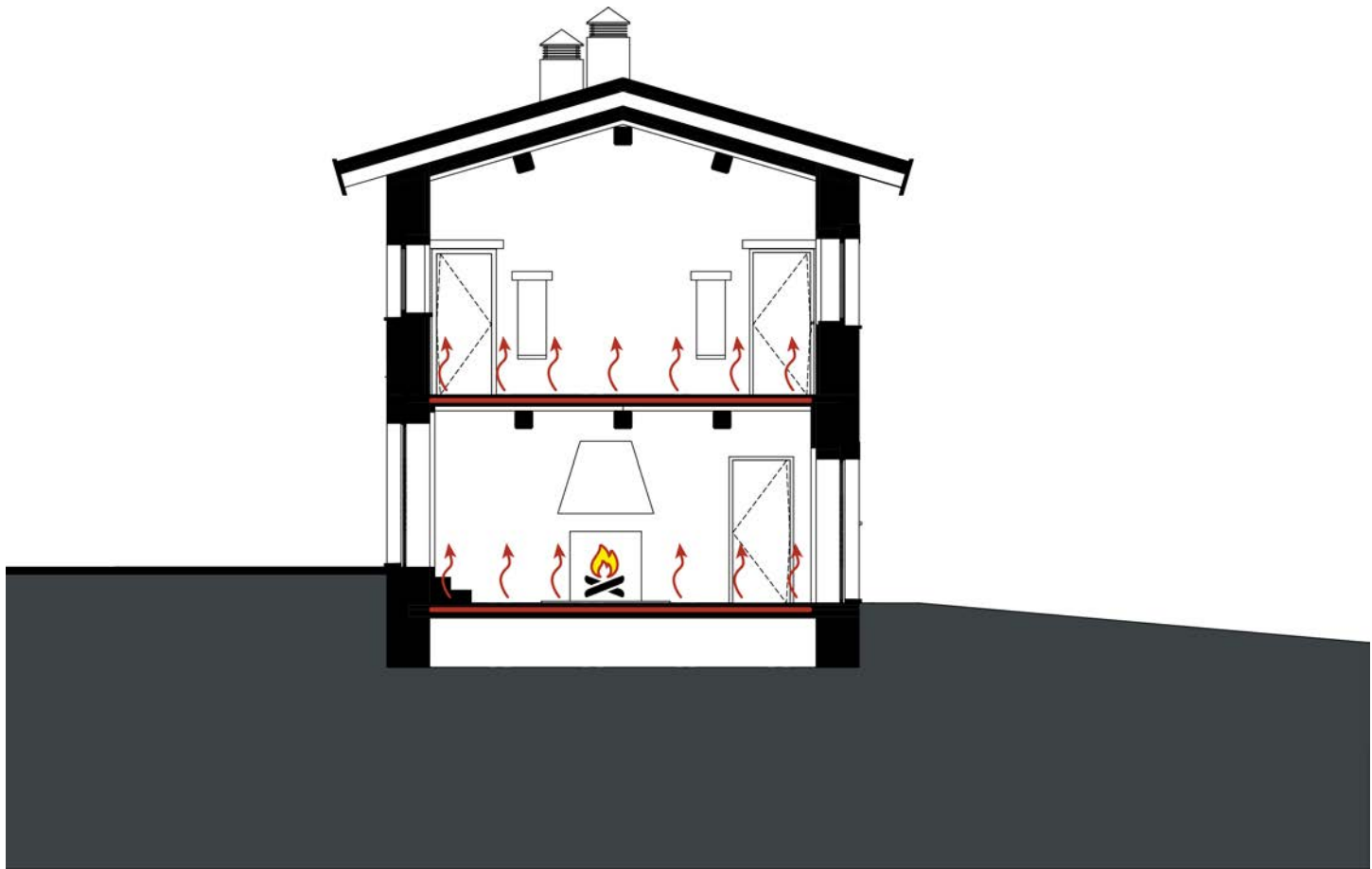


PODERE BOVOROSSO

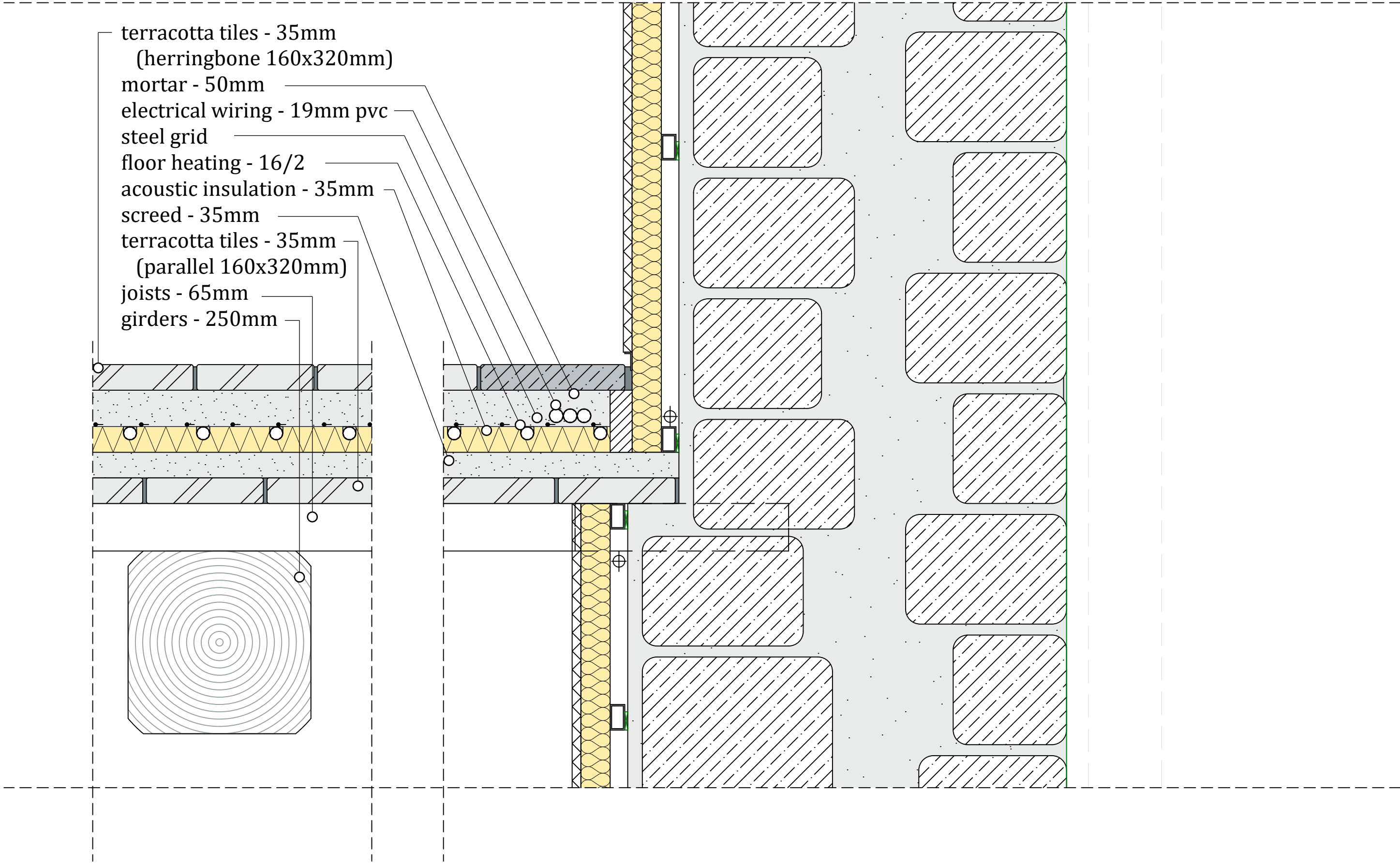
CLIMATE & CONSTRUCTION IMPROVEMENTS



Insulation

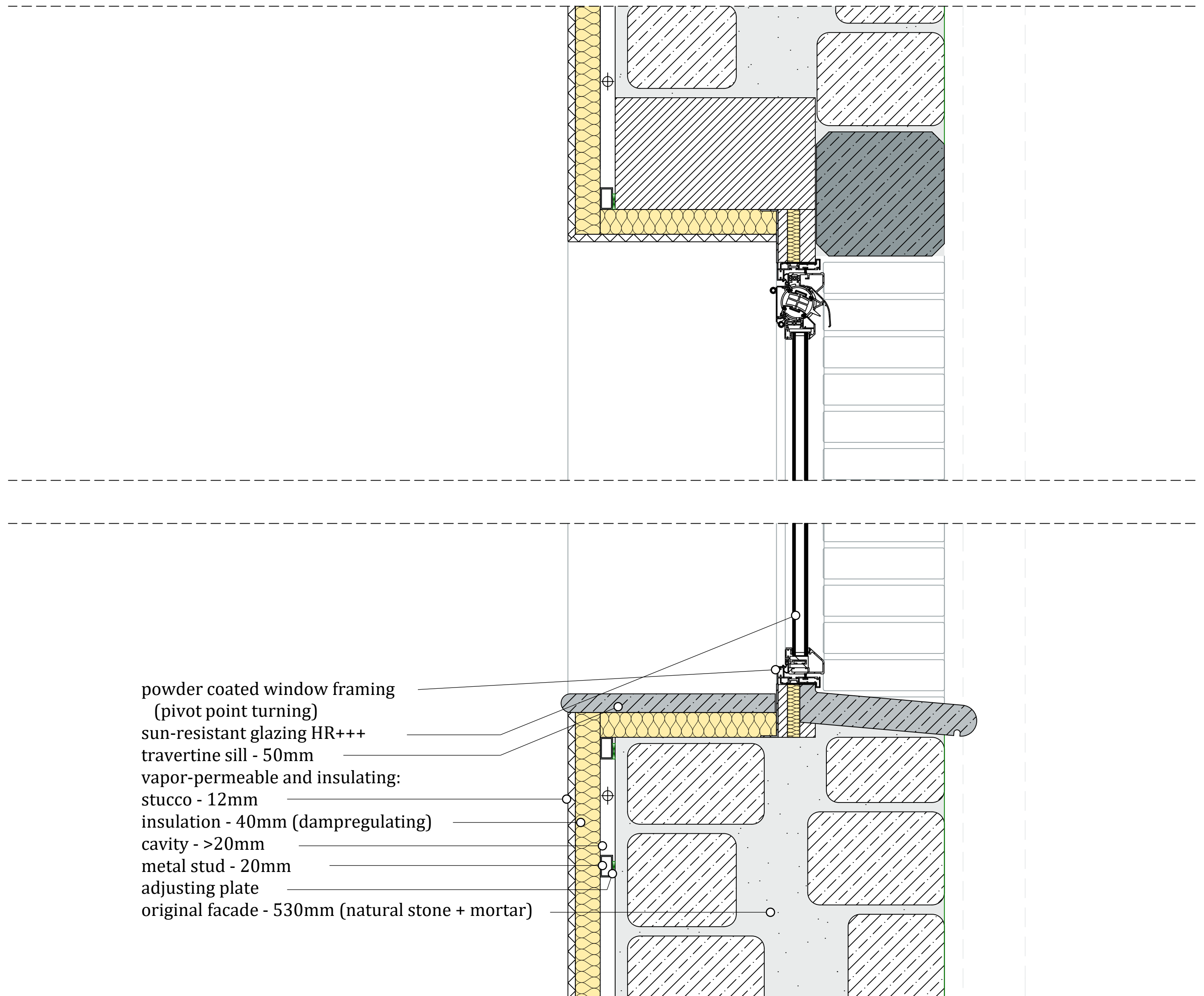


Heating



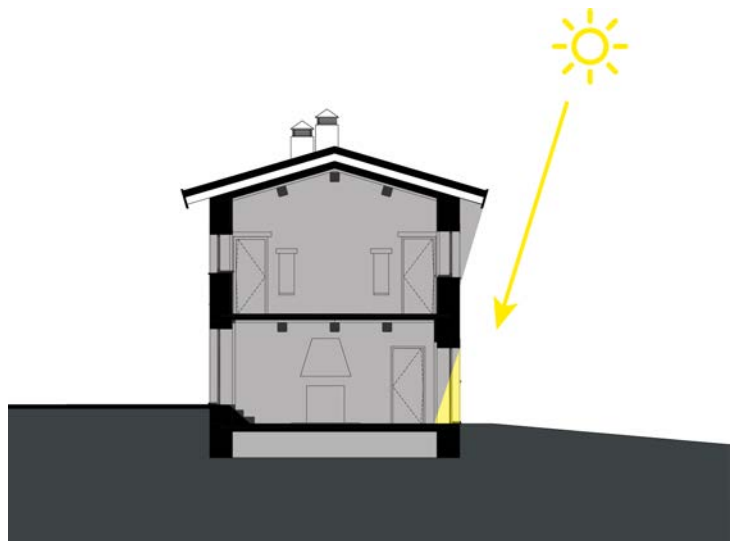
PODERE BOVOROSSO

CLIMATE IMPROVEMENTS

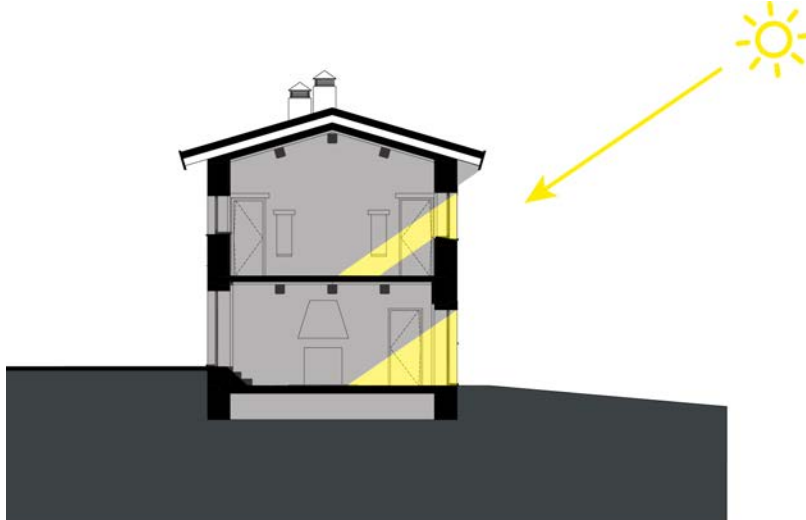


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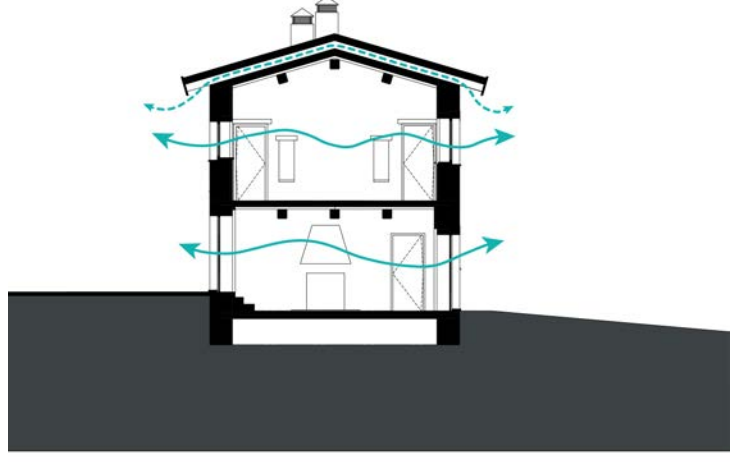
CLIMATE & CONSTRUCTION IMPROVEMENTS



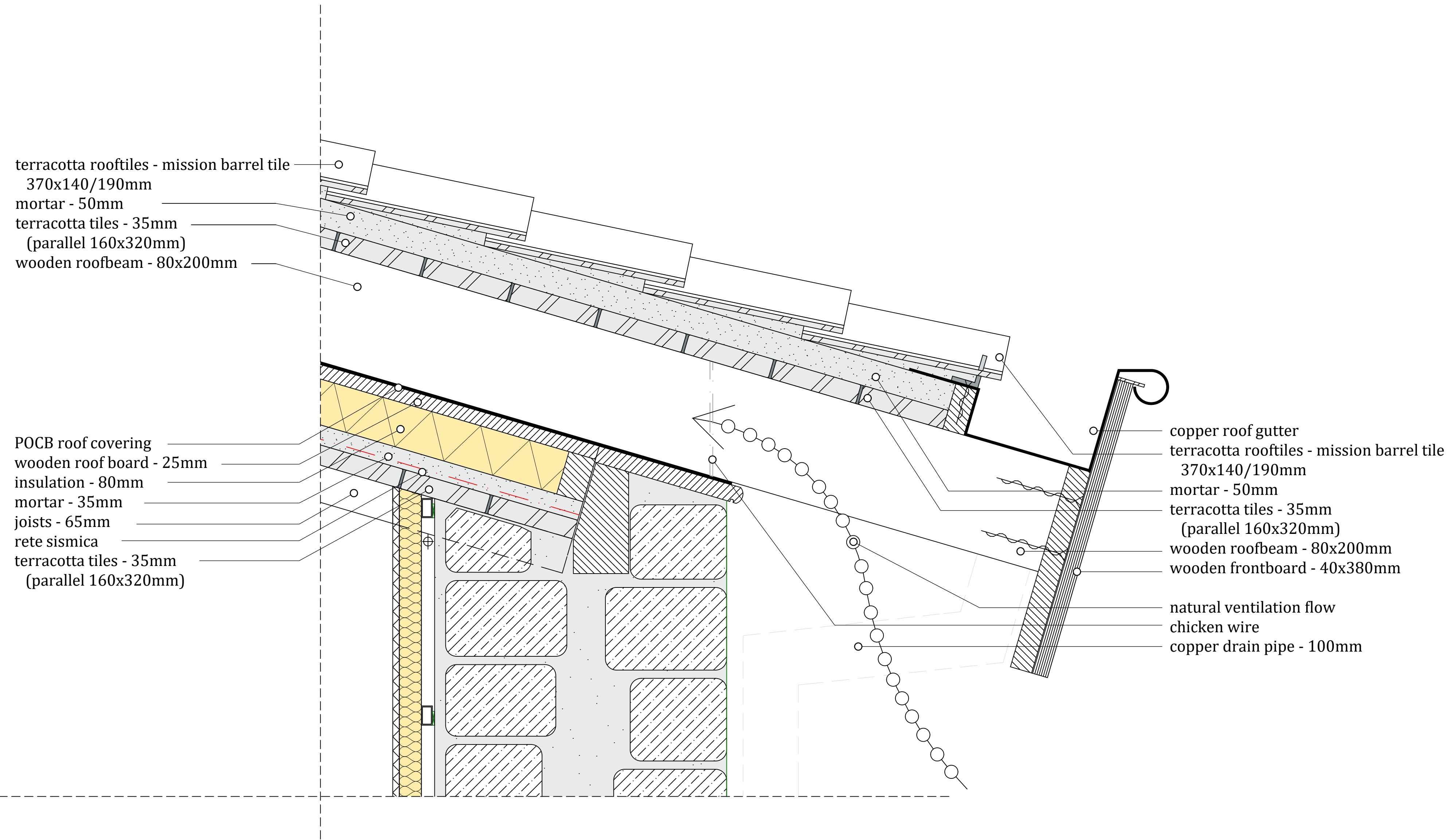
Summer



Winter



Ventilation



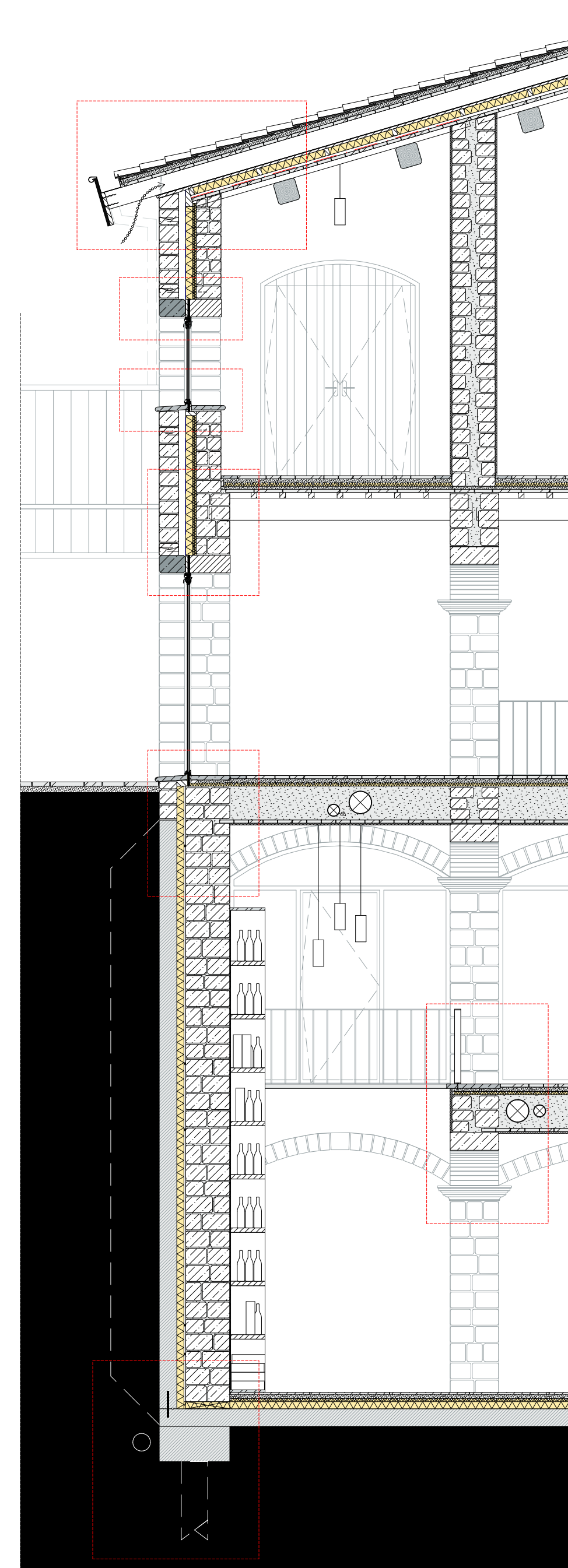
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CONSTRUCTION



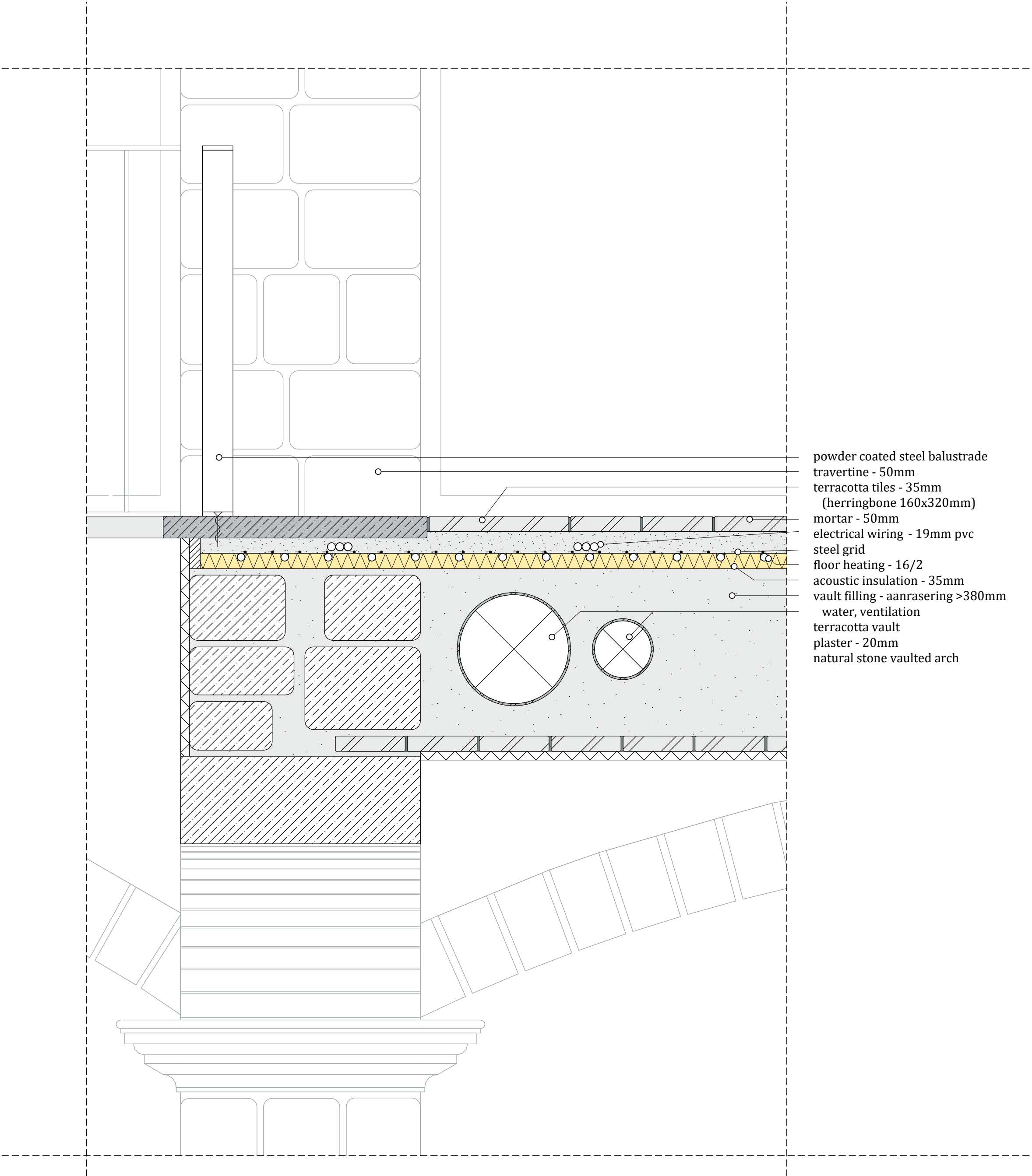
PODERE BOVOROSSO

CONSTRUCTION



PODERE BOVOROSSO

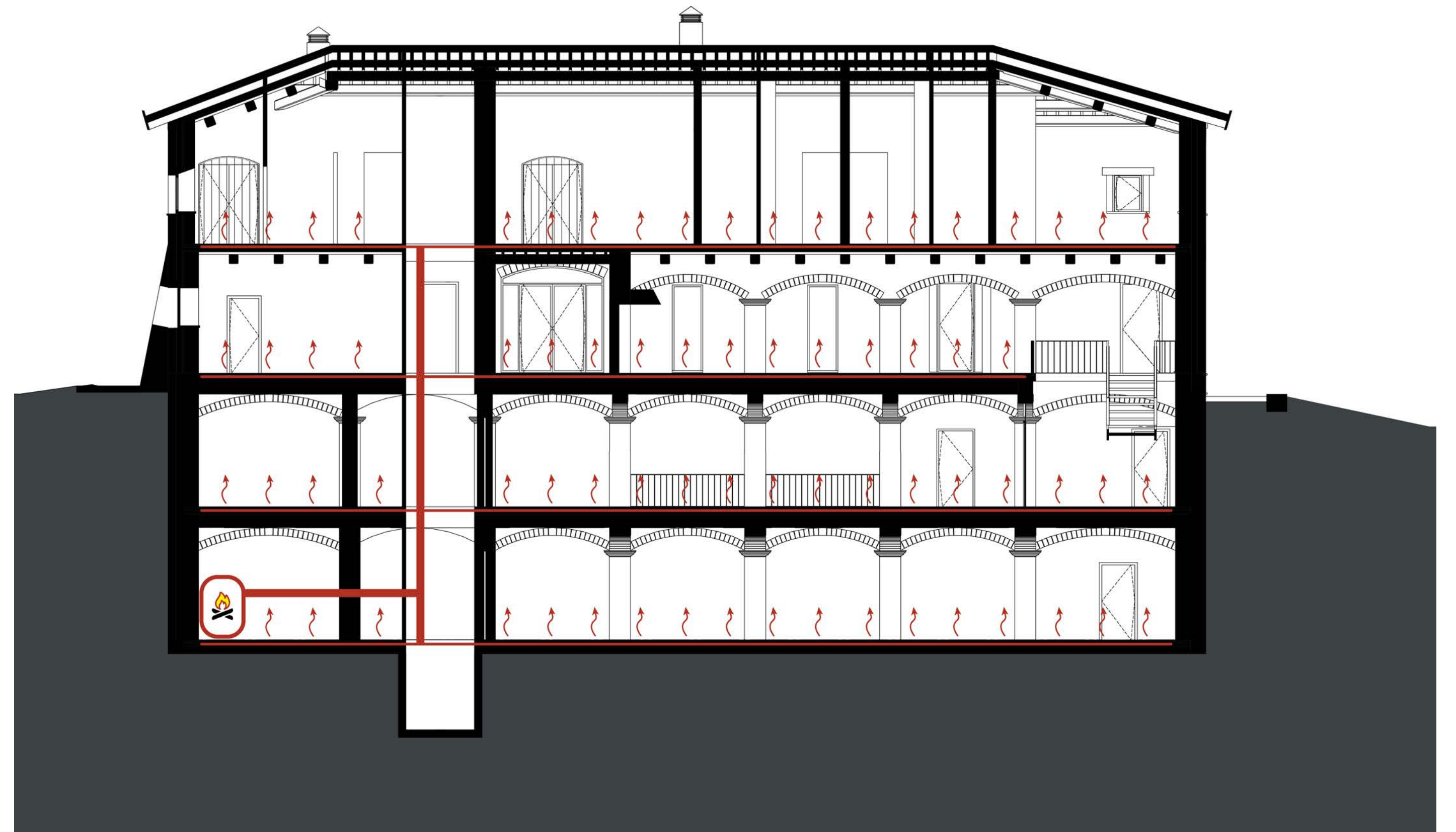
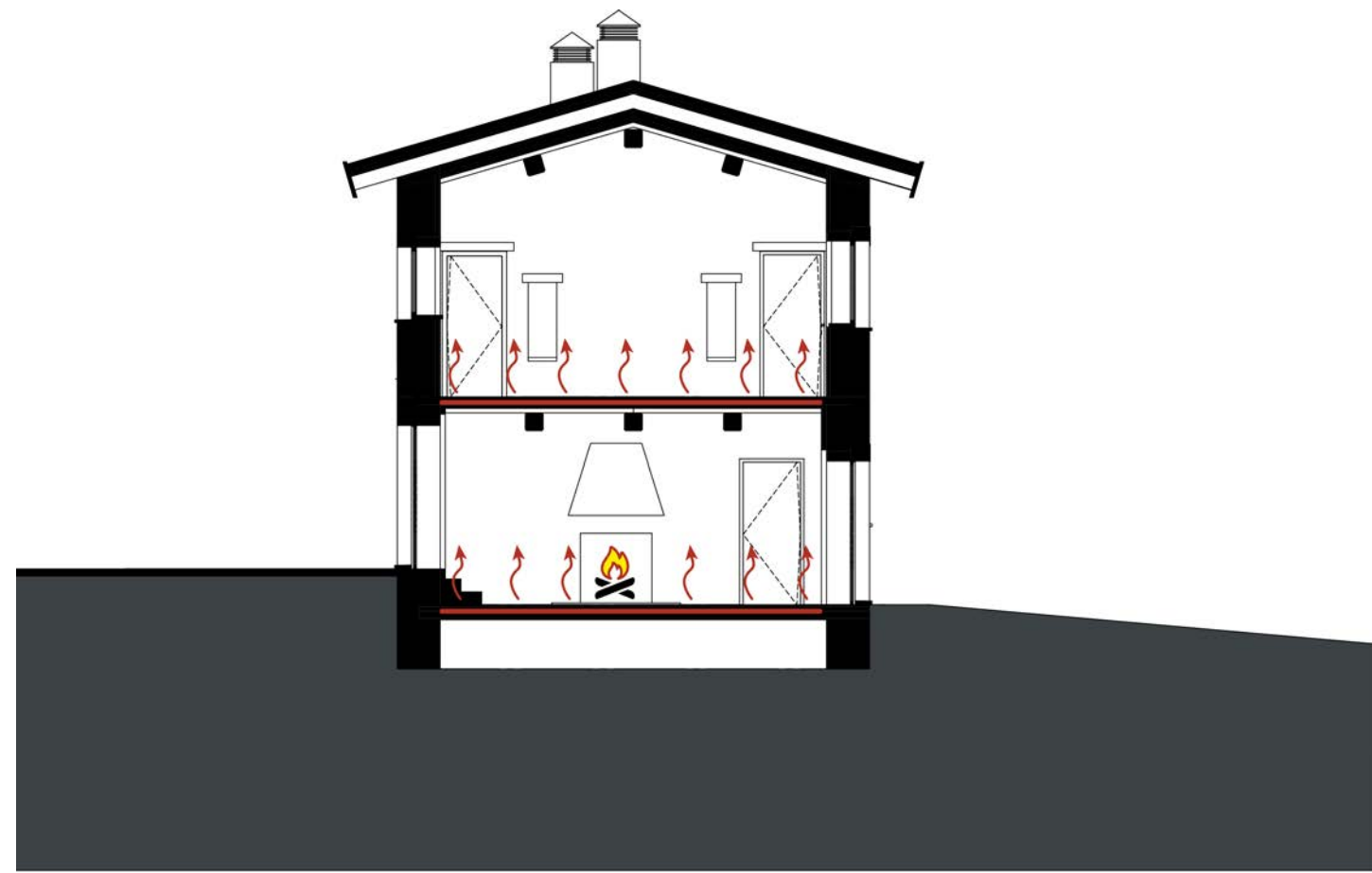
CONSTRUCTION



- powder coated steel balustrade
- travertine - 50mm
- terracotta tiles - 35mm
(herringbone 160x320mm)
- mortar - 50mm
- electrical wiring - 19mm pvc
- steel grid
- floor heating - 16/2
- acoustic insulation - 35mm
- vault filling - aanrasering >380mm
water, ventilation
- terracotta vault
- plaster - 20mm
- natural stone vaulted arch

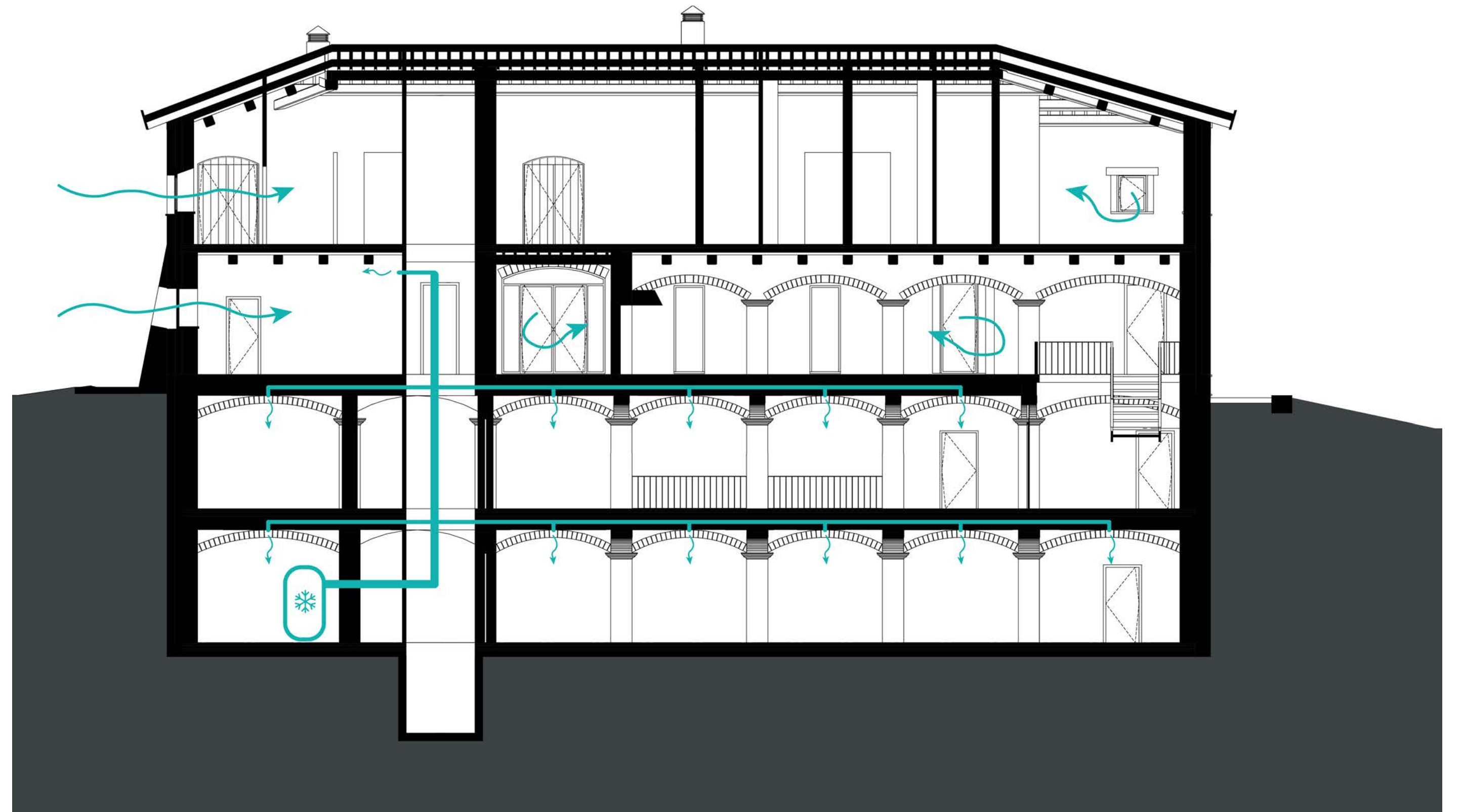
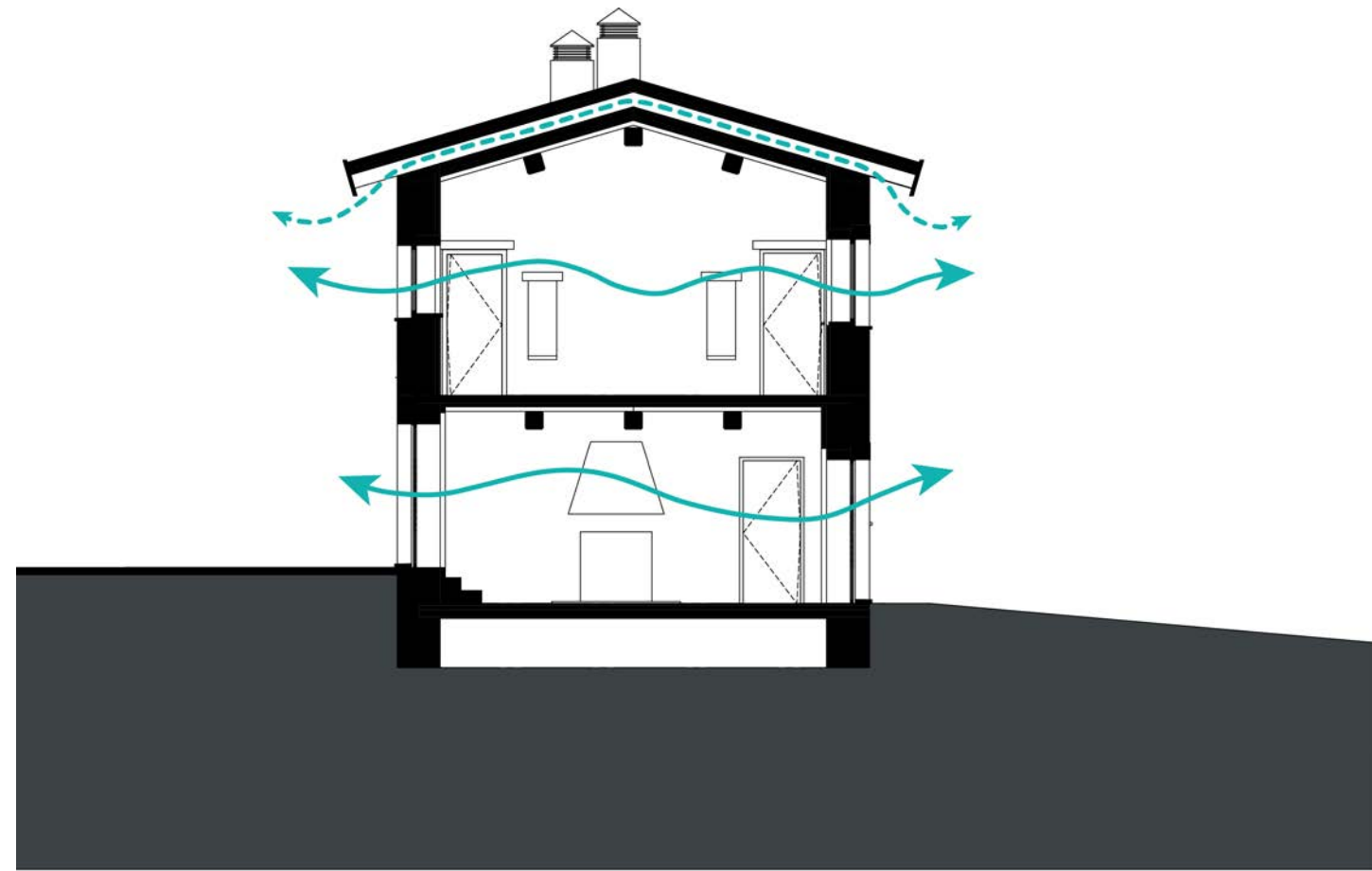
PODERE BOVOROSSO

HEATING PRINCIPLE



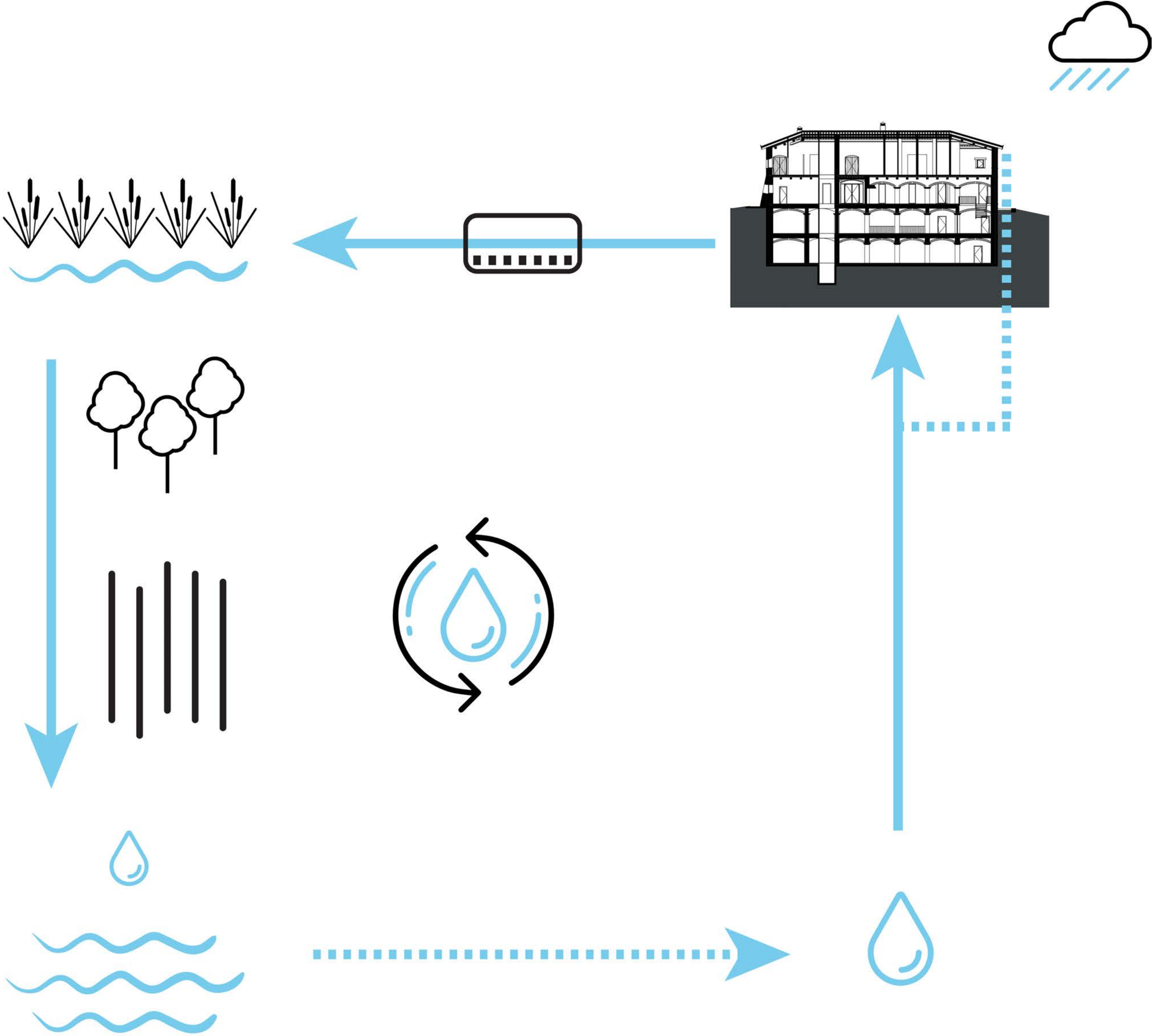
PODERE BOVOROSSO

VENTILATION PRINCIPLE



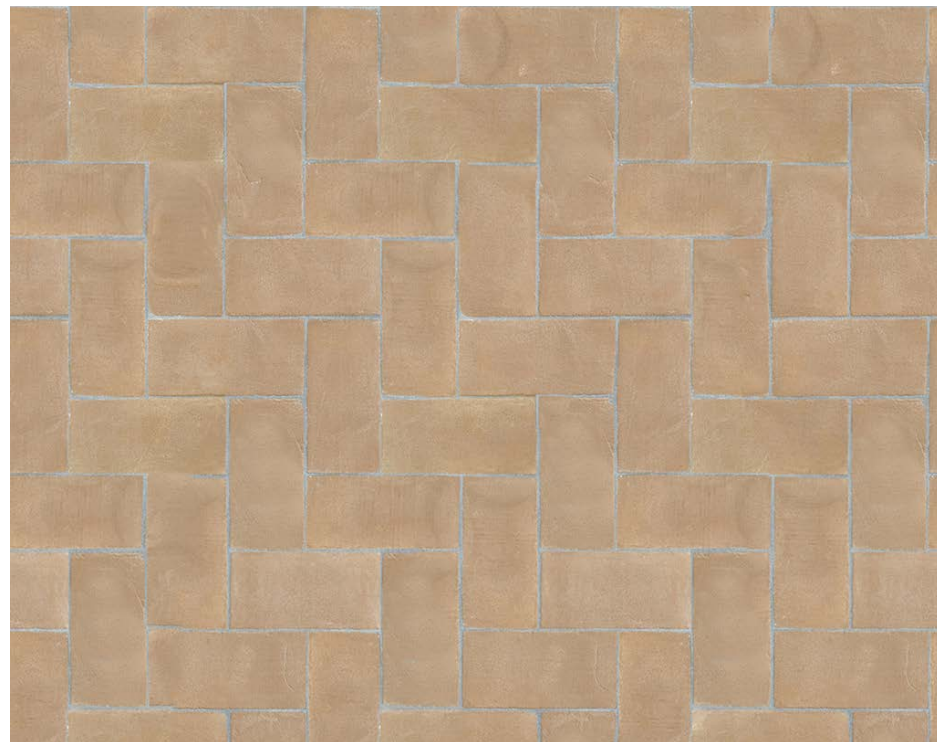
CLIMATE DESIGN

WATER USE & FILTERING SYSTEM



CLIMATE DESIGN

BUILDING MATERIALS



CLIMATE DESIGN

BUILDING MATERIALS



CULTURAL HERITAGE

2018 EUROPEAN YEAR OF CULTURAL HERITAGE

**OUR HERITAGE:
WHERE THE PAST
MEETS THE FUTURE**

2018 
**EUROPEAN YEAR
OF CULTURAL
HERITAGE**
#EuropeForCulture

CULTURAL HERITAGE

2018 EUROPEAN YEAR OF CULTURAL HERITAGE



**OUR HERITAGE:
WHERE THE PAST
MEETS THE FUTURE**

2018 
**EUROPEAN YEAR
OF CULTURAL
HERITAGE**
#EuropeForCulture

// Cultural Heritage Counts for Parrano





BOVO 

