



The Adaptive Re-Use Proposal for Citadel of Mondovi

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L.M - Architettura Per Il Progetto Sostenibile



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Bird Eye View: Citadel of Mondovì



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Preface

According to a report and survey published in July 2019, named as 'Regenerare spazi dismessi', translated in English language as 'Regenerate Abandoned Spaces' by Fondazione CRC (Casa di Risparmio di Cuneo Foundation), there are 449 abandoned buildings were surveyed in 126 municipalities out of 250 in the province of Cuneo. It is reported that the highest number of abandoned buildings are located in Mondovì i.e. 32. While 2nd in the list is the municipality of Cuneo which has 25 disposed assets.

It is interesting to note that the majority of the assets were intended for military use. The reason being their greater role in the past for border management and larger centers.

Upon categorizing these disposed assets by types, 06 basic categories were formed. First in the list which has greatest number of assets (25) belonged to services (like schools). While second was category of military buildings which has 23 assets.

Remember that, in the province of Cuneo, the number is even higher that the category of 'former industrial areas', which has conventionally being the subject of study.

Upon looking for same subject on national scale (of Italy), reports suggest that there are around 1500 former military assets which remain disposed despite some occupied by state institutions like Carabinieri, Forestale, Guardia di Finanza and Polizia di Stato. Another document which identifies 580 such assets scattered across different provinces of Italy is mentioned in the first part of the work.

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In province of Cuneo, the highest number of abandoned buildings are located in Mondovì i.e. 32. The province has 23 disposed 'military assets' which is second highest category of disposed assets.
.....

Such an asset fell into dis-use is the Citadel of Mondovi in Piazza Mondovi. Referred as 'Citadel of Mondovi', the place had previously a church and later a cathedral and a monastery. Then converted into a citadel in 16th century during the reign of Emanuele Filiberto. It also unfolds the Monregalese's efforts to maintain their autonomy. Be it from the French rule or Savoy and Salt Wars.

The Citadel of Mondovi may not be in the list the prominent heritage assets unlike other significant heritage assets located in the province of Cuneo, but it can nonetheless be considered interesting not only for its architectural value but historical association with Piazza. The citadel fell into disuse primarily due to abandonment. The thesis aims re-use the disposed asset through an intervention aimed at the preservation of complex and at the same time revising the citadel of Mondovi for new functions of social utility. The functions which would be appropriate for neighborhood and thus compatible and sustainable.

.....

The thesis aims to recover the disposed asset through an intervention aimed to maintain the cultural identity of the place, and at the same time propose new functions of social utility, compatible with neighborhood.

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For the very reasons, it is fundamental to study the context and territory in which the building is located. Mondovi as city of art and culture is known for frescoes and baroque architecture by great artists/architects like Andrea Pozzo and Francesco Gallo.

Paper mills, pasta factories, tower clocks, metal work, furnances and match factories were prevalent activities of its tradition. The place is known for progressive developments like the art of printing and ceramics.

In fact first book was published here in 1472. Also, in 1560 the prestige of the city was such that it is recognized as seat of general study of the Savoy Kingdom. From 1560-1566, Mondovi was seat of Piedmont's first university.

In order to draw on these characteristics, the re-use proposal tries to incorporate aforesaid characteristics and traditions of the place. Predominantly, it gives importance to historical military valor of Alpine regiment (which resided in the transformed fabric of the medieval church) via military museum and galleries. The new function will also comprise of branches of Mondovi's Print Museum and Ceramic Museum to further promote its image as historical center for printing and ceramics. In order to revive the Mondovi's early spirit for progressive developments in education and innovation, the re-use proposal incorporates spaces for tech. entrepreneurs, civic library, and schools for kids. In addition to this, tourist's accommodations are added to encourage tourism to such

little known areas.

Last but not least, all these functions are binded with social utilities (like park, play area, schools, retail shops) so that 'Citadel of Mondovi' which has apparently become a void bereft of social life would become a social magnet, an architectural entity to revive the memory of the place, source of economic development and cultural enhancement of immediate neighborhood.

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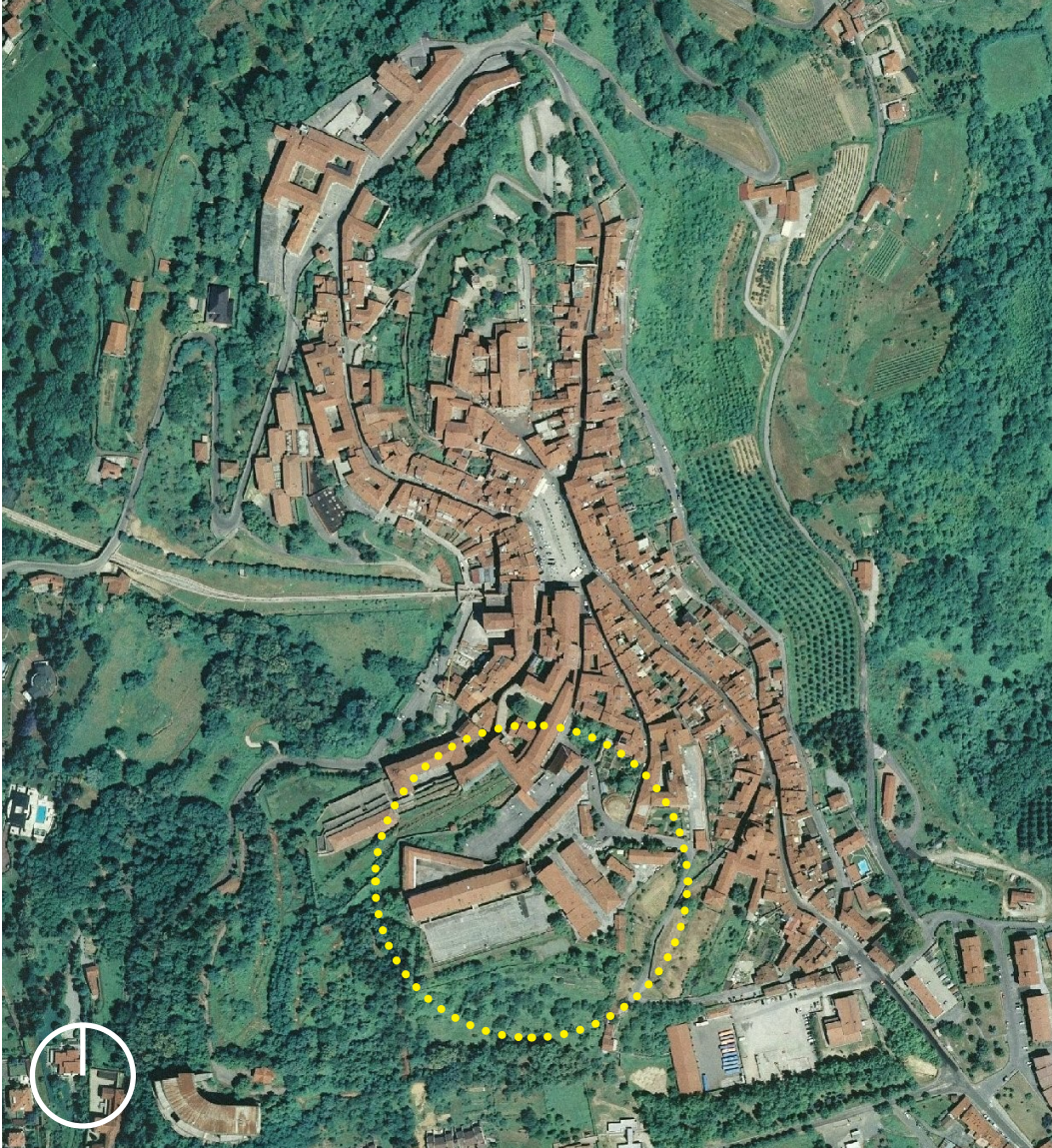


Image: Map of Piazza Mondovì & Citadel of Mondovì

Structure of the Work

The structure of the whole thesis is divided into following three (03) major parts:

- The State of the Art
- The Case Study
- Recovery Proposal

1. The State of the Art

The first part of the work (i.e. The state of the art) begins by exploring the theme of abandoned buildings/assets. It looks for the background of abandonment, the general factors which lead to abandonment of properties and its subsequent impacts (on communities and built environment). Later in the same part, it highlights the ways which can be employed to reclaim such disposed assets. It also looks at the statistical data of abandoned properties located in Italy (especially in province of Cuneo where the site is located). Here the plight of disposed assets is discussed located in Mondovi w.r.t their types with the help of statistics quoted from reports and surveys.

The site (Citadel of Mondovi) being a military asset is also seen in conjunction with similar disposed military assets scattered across different provinces of Italy. The numbers of such assets shed light on the issue of disposed properties which require due attention. Some practical architectural interventions proposed for such assets on behalf of municipalities are incorporated in order to draw comparison with our own case. The part also discusses various projects initiatives taken in Italy (Northern Italy) to advocate re-use of the disposed properties (especially former military assets).

Most importantly, the mapping of abandoned sites in the immediate context of the site (Piazza Mondovi) is done in this section. It also maps and discusses the sites (abandoned assets) which have fallen into dis-use.

2. The Case Study

The Case Study discusses the site i.e. Citadel of Mondovi. It thoroughly explains the socio-political events which led to evolution of the citadel. The historical time-line is drawn on the basis of the historical events supported by the iconography from different sources¹, including earlier research works and online iconographic archives.

The physical transformation of the building within the citadel are elaborated here in this section through diagrams and models (which are recreated using historical drawings of the site). This enables better comprehension of the transformation of the citadel. Especially the two of the historical blocks within the citadel which belonged to the 15th century cathedral and later appropriated for military barracks.

This part also discusses the territorial study of Mondovi where the site is located. It also looks on a meso scale at the site in order to understand the

¹. Iconographies included in the thesis belong to various sources. This includes earlier works of students at Politecnico di Torino (see bibliography).

immediate context. Historical, cultural and architectural aspects of the place are studied in this section. This has helped in better planning during the proposal or the design phase.

3. Recovery of Citadel

In third and final phase (Recovery of Citadel) some architectural case studies are discussed in order to draw comparison with thesis' recovery proposal. These case studies predominantly discuss disposed assets which have been reclaimed and thus reused for social or cultural purposes.

Later under the same 3rd phase of the work; site survey, analysis of state of conservation and ultimately project proposal have been discussed .

.....
Final Phase presents site survey, degradation, restoration of edifices & ultimately design proposal.
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Part 1: State of the Art

Chapter 01

Introduction to Abandoned Buildings

1.1 WHAT ARE ABANDONED BUILDINGS?

The dictionary² definition of the term ‘abandoned’ is; deserted, forsaken and uninhibited. It also refers to a place, building or an asset that is no longer used or occupied. In legal³ domains, abandoned buildings mean ‘buildings that are either vacant or occupied and there is no maintenance of the building to the extent where the condition of the building poses a health and safety risk to occupants of the buildings or neighboring buildings’. And they must be vacant for a period of time.⁴ In addition to this, abandoned buildings are peculiar type of unused buildings which are not completely usable, functional and serviceable. These are the types of the buildings which lack primary management and maintenance.

Variety of noticeable conditions assist us interpreting the term in a comprehensible way. As building gets irrelevant, forgotten and non-functional, change begins in the visual

qualities of building fabric, space as well as structure.

.....
“...dictionary definition of the term ‘abandoned’ is; deserted, forsaken and uninhibited. It also refers to a place, building or an asset that is no longer used or occupied..”
.....

The phenomenon of abandonment is prevalent in majority of the urban settings across the globe for various reasons. These places include the European cities. Series of component have prevented such places from being acknowledged as important urban assets. A renewed understanding, creative tools/methods and collective effort (public and private) is much needed in order to deal and integrate the ignored territories. As a result, apart from efficiently using our resources, the issue of limited space in cities will be alleviated to some (or great) extent.

2. Collins Dictionary

3. Law Insider

4. ASU Center for Problem Oriented Policing

Currently, with the global concerns about the dissipation and limitation of resources on the planet earth, has led to rethink our cities in many ways. This is even evident from the pressure on the infrastructure and resources. European cities, also hit by economic crisis, have stopped the urban expansion and have re-focused on the ignored territories. Thus a series of re-assessment process is carried in order to make the cities livable within available resources.

Cities that are establishing strategies to make their environments more livable and healthier are providing due consideration for their resources. Reusing outmoded spaces and structures has become an essential method for sustainable development and a viable response to the waste of resources caused by the destruction and redevelopment of existing stock.

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“... the pressure on infra-
structures, diminution of
resources, economic cri-

sis, etc. have led cities to
ceased outward expansion
and have turned back to-
wards their forgotten cen-
ters...”

.....

In brief, there are other several other factors which contribute to abandonment of assets. Some of the key factors of abandonment which are also relevant to the Citadel of Mondovi are following:

A. Regulatory Expenses

One of the factor which leads to abandonment of the territories is lack of the compliance to municipal and risk standards. This phenomenon is mostly associated to those factories and industries which produce and sell hazardous materials. Such production industries are regulated by governments in order to decrease the risks in the local environment. Despite this, to save money which is to be spent on the handling

of disposals, waste, following standard operating procedures, human capital required to monitor the process, equipment necessary to carry out the work etc., such companies and the property owners burn, bury or discharge waste in to the environment. This leads to increase in 'brownfields' and deterioration of local environment, thus creating abandoned and uninhabitable space.

Subsequently, a potential investor or a company willing to acquire land hesitates just because the amount of money required to remediate the real estate would be an economical

loss. Such conditions and phenomena are common in the areas/real estates where chemical and drug production is carried out.

B. Population Reduction & Job Crisis

It is very common and comprehensible phenomenon that people migrate to places where they find economic opportunities. This trend is directly related to country sides as well as cities with least economic opportunities. In this situation the incidents of abandoned properties increase when homeowners/tenants lose their work which provides livelihood.

With the gradual reduction of population, the need for housing projects decreases. This results in less demand for housing units/projects. Ultimately, the estate developers are less interested in investing in prolonged time on return of investment. When the situation further deteriorates, then even the existing dwell-



Image: Ghost Town in Balestrino, Italy (Abandoned due to geographic instability - Earthquake)
Source: <https://www.worldabandoned.com/balestrino>

ings may be abandoned.

C. Old Edifice

The age of the building, especially in the case of housing and dwelling units, can be a major hinderance in its marketability. The same factor can also be a big concern for those who are going to use it on daily basis. Various natural risks associated to the building, decays in the structural skeleton etc. pose huge threat for the liveability. In addition to this there are other factors which makes such dwellings less favorable and are mentioned below:

- a. Huge budget required for its renovation
- b. Unavailability of modern needs (enough parking, garage, terraces, and open planned spaces)
- c. Improper connection to the vehicular routes
- d. located in densely-populated areas
- 6) Unliveable environmental conditions like smoke and waste.

D. Exclusive Financial Interests

In a lot of cases the exclusive economic interests by the real estate owners can be crippling. Such landlords collect the monthly rent from the tenants and ignore the proper maintenance of the real estate. With this the surrounding of the housing also gets ignored and the quality of environment decreases. The situation deteriorates exponentially when the owners are not present in the locality and nobody is present for quality surveillance. With time the decent tenants move out and those with financial limitations move in. Tenants insensitive to the quality environment. Crime and disorder follow in such circumstances. The situation proliferates in the whole area as a result adverse effects on the locality. And consequently non-preferable to potential customers. And later the whole locality or real estate gets abandoned until a robust investment and intervention.

E. Witting Negligence

In quite number of cases, the estate developers play too cleverly with the state regulations. Owners, investors and real estate developer collectively and intentionally ignore properties especially those in historical areas.

During the process, the old buildings get time to deteriorate and ultimately ready to be declared as 'risky' by the state or municipality. Such declaration paves the way for complete demolition of real estate which is then later re-developed by the investors. Such cases are also reasons of abandonment of real estates.

.....

“...the economic factors are the main reasons for abandonment of properties. Other reasons include foreclosures, Job loss, Population reduction, Old proper-

Image: Caserma Durando in Piazza Mondovi (Abandoned asset), Source: <http://www.samuelesilva.net/blog/2017/01/16/caserma-durando/>

ties, witting negligence and regulatory costs...”

.....

F. Lack of Resources

It is also often the case that the local governing bodies and institutions lack financial resources and creative skill (professional individuals who have the capacity of problem solving using innovative methods but under scarce resources). The municipalities lack public services fund to invest in such assets. In such cases, mostly



the authorities already under constraints to look for other important municipal projects. And therefore such governing bodies have to wait, hunt or rely on non-governmental cultural or investment institutions.

1.3 ISSUES

“The abandonment generates wastes”. (Lynch, 1990; p.205) The slow and steady process of leaving an architectural object and a space - abandonment - has altered the situations in different localities and cities. The places have become fragmented with craters lacking social, economic and cultural life. This situation is often the case with landscape of Industrial cities where the process of industrial production has ceased.

It is worthy to mention here the difference between the ‘abandonment’ and ‘decline’; decline is a gradual process while abandonment is a loss. Production has a peculiar link in the case of abandonment in Industrial landscapes. In cities, the jettisoning

of manufacturing areas has left the buildings and structures in peripheries as well as centers. Once active as production centers and economic zones have now become empty containers in different areas of the cities. At the time, the boundaries of the cities were expanding (uncontrolled sprawl) for aforesaid reasons but currently the boundaries of the cities are shrinking towards centers (as an opposite phenomenon) for various reasons.

.....
“...abandonment of production activities have profoundly changed the landscape of the contemporary city: fragments, waste and residuals constitute the post-industrial landscape, leaving skeletons & ruins ...”
.....

Abandoned practices contribute to the conditions which are detrimental

to communities and environments. Each are mentioned on the following pages.

A. Crime Zones

The lack of attention, guard and surveillance towards the abandoned places provide suitable opportunities for criminals and offenders. Criminal gangs are attracted to such environments as no body is present to control and regulate such places. With the time, the word spreads within the criminal circles for its suitability to cover and hide motivated criminals. A time comes when such places become a headache for the community as well as regulating authorities. The crime behaviour escalates, offense rises, resulting in disorder in the locality. This creates fear among the local residents and affects the public life.

This has been the case with the abandoned asset (Padiglione Michelotti - Bertone) of southern tip of Mondovì Piazza. The local teenagers and

migrants invade the place as a safe haven for drug use. Though it was later closed and controlled by local police.

B. Fear

As stated earlier, the crime zones (emerged on abandoned sites) afflict the social and communal life of the neighborhood. Afraid of the consequences, the parents hardly allow their kids to outdoor places. Even the older generation restrict themselves to limited outdoor areas, fearing the victimization.

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“... in Citadel of Mondovì, the guardians currently have to keep the dogs inside the barracks and then later unleash them at night in order to deter crime...”
.....

This contributes to social isolation, physical and psychological health is-

sues. In addition to this, the presence of abandoned properties provide a negative impression to the onlookers. It portrays image of an unregulated, uncaring and uncontrolled localities. This also reflects the lack of capacities of the local governing bodies (including police). In case of 'Citadel of Mondovi' the guardians currently have to keep the dogs inside the barracks and then later unleash them at night in order to deter crime. With other factors, this factor has contributed to total absence of social life around the place.

D. Real Estate and Govt. Tax

Derelict buildings with it reduced visual quality and economy are easily brushed aside by companies and banks. Institutions hesitate to provide financial loans and support for such places with less touristic potential and capital generation/returns. Such real estate with less economic value tends to generate less economic activity, consequently less tax

for the governments. This further affects the government services as the tax reserves are less in order to fund the municipal projects.

The various abandoned assets on the Piazza Mondovi have similar fate. Lack of fund from municipality for regeneration of these assets has curtailed capacity to collect and spend taxes.

E. Health

Public health is affected when the abandoned properties become the dumping sites of waste. These sites may be used for industrial waste or waste collected from different parts of the cities/localities. Industrial wastes with chemicals and persistent organic pollutants affect those who pass by or live in vicinities of such neighborhoods. Abandoned properties where the waste water gathers, often become source of mosquitoes and other kind of organisms. Dumping of hazardous materials like asbestos in such places is also a common site.

The health of the youth (astray) in the locality is also affected on such sites. 'Needle sharing' for drug usage is widely practiced at such places. And the said plight of Mondovi Piazza is already discussed in previous section.

F. Vandalism

Another plague that affects and accelerates the negative effects linked to the abandoned properties is the act of vandalism. Youngsters from the locality commonly use spray paints and vandalize the properties. Teens paint graffiti on walls which



Image: Vandalism in Hotel Puerta del Sol in Liguria
Source: www.samuelesilva.net/blog

reduces the value of the property, ruins the visual quality and portray a negative impression to the tourists and onlookers. Such juvenile delinquencies intended needs to controlled which cause harm to locality.

1.4 OPPORTUNITIES

The way space is used and utilized is gradually changing now. In cities, now there is an inclination to use the existing assets and spaces optimally and creatively. Due to limited urban space the significance of the abandoned assets are becoming key strategic places for sustainable development. Therefore they provided excellent opportunities to enhance functional, cultural, and ecological domains in urban environment. The disused and underutilized spaces and buildings can become opportunities for new jobs, the promotion of collaborative economy, social innovations and startups.

.....
“... due to limited urban

space the significance of the abandoned assets are becoming key strategic places for sustainable development. Therefore they provided excellent opportunities to enhance functional, cultural, and ecological domains in urban environment...”

.....

The recovery and regeneration of such places offers opportunities to develop new public places with great social impact. Small scale and large scale events can be organized like exhibitions, concerts, open market, festivals and training activities. In addition to this, such potential derelict spaces can offer space and support to companies that decide to contribute with specific training activities.

Even if the local regulations don't offer to alter the original functions of

the place then such places offer the opportunity to initiate the process of participation with relevant bodies. These may include the opinions of Municipal body, citizens, cultural associations, social enterprises and cooperatives. This further helps in making the stakeholders actors in the process of urban change while authorities depart from service providers to enablers/partners in bringing the change to disused space. This way the abandoned spaces become opportunity rather than a disadvantage and the space is valued based on its potential use rather than the sale value.



Image: Co-City Turin Project (A former disused asset)
Source: <https://urbact.eu/discovery-covered-square>

Another opportunity which abandoned assets offer is; convert them to 'urban commons'. These spaces are owned and maintained by the community. The resultant impact is in terms of social mixing, community cohesion, enterprise development and job creation. This ultimately reduces poverty and exclusion in neighborhoods.

Furthermore, the disused and abandoned assets (those especially of

large scale) provide a huge opportunity to advocate and enhance the local identity of the place. Such places can offer local gastronomy, arts and crafts, local made products etc. This boosts the local business and micro-economies.

.....
“... disused and abandoned assets (those especially of large scale) provide a huge



*Image: (Historical building and barracks of Savoy transformed to advocate identity)
Republican Arsenals in Pisa, Italy
Source: <https://divisare.com>*

opportunity to advocate
and enhance the local identity
of the place...”

.....

1.4 DESIGN A RE-USE PROPOSAL

The idea of the ‘shrinking cities’ (Oswalt, 2006a, 2006b) describes the phenomenon and identifies the increasing presence of abandoned lands. De-industrialization has created and produced the undifferentiated extension of waste lands and territories. Therefore it is considered that the concept of decrease must prevail, in order to try to anticipate intervention strategies adapt to new forms of disposal in contemporary city. Ruin, waste and residual spaces on the edge of the industrial building are the first reflections about the necessity to establish new ways of recycling and recovering existing buildings.

However the question to be considered is how to treat the fragments of ‘social craters’ and ‘urban voids’? There is not a one stop shop to counter the phenomena of abandoned building, nor it can be dealt by simply demolishing and then intervene with a new construction. Rather it is a work of regeneration that allows the identification of new architectural methods and interventions on existing abandoned assets of cultural or historical value.

The elementary and most important step to target the abandoned spaces (either dispose or converting them for communal use) is to identify the potential of the asset. If the target asset provides opportunity and has capacity to render services to the community then it must be dealt accordingly. If the case is opposite, then necessary steps must be taken. The ‘selection/rejection’ decision in itself can be challenging process. The opinion and expertise of the public and other stakeholders must be part of the it. Because experts from various disciplines may

have different interests particularly investors and real estate developers with merely financial interests.

.....
“...how to treat the fragments of ‘social craters’ and ‘urban voids’? There is not a one stop shop to counter the phenomena of abandoned building, nor it can be dealt by simply demolishing and then intervene with a new construction...”
.....

Since the cities are afflicted with the growing abandonment of properties. The phenomenon compels to reflect on the issue. It has therefore become crucial to start the process of regeneration. The places which have been abandoned for various reasons need to be integrated into neighborhoods through different ways (most commonly converting them to public spaces, places of innovative econo-

mies, social hubs, and green breathing spaces of neighborhoods).

The idea of rapidly creating new buildings must be regulated (unless important) and assets with potential must be recycled and reused. For this purpose, creative and pragmatic methods and tools are required to create new relationships between used built fabric and the disposed. This will allow us to rewrite the context in new ways instead of eradicating it and creating afresh. Consequently, the process will bring new value to the place and will help us in organizing and resources in sustainable manner. A retrospective to our built space let us affirm the idea that ‘architecture is itself is a recyclable material, which, besides we have always recycled’ (Ciorra, 2011; p.18).

.....
“Architecture is in itself is a recyclable material which we have recycled always.”
.....

The abandoned urban fabric turned into public utility also helps in preserving the collective memory of the past. It adds layers of the history onto the same space/asset, with its rich past events. This is also the reason that it (reuse) is not about only the process of preservation and conservation. The current situation (limited resources with maximum output) compels us to expand the idea of 'reuse' to larger scales. Cities and big territories which waste their resources and overlook their potential value requires due attention. Such territories need to be re framed with the existing structures.

The transformation processes of the disposed assets and the existing structures are closely linked to the concept of belonging to a place and its contextual identity, therefore requires the rejection of the 'tabula rasa'. It is therefore also important to have knowledge and understanding of the context for the intervention project. Re-use must deal with the modification of the building and the scale of the architectural object.

.....
“...The transformation processes of the disposed assets and the existing structures are closely linked to the concept of belonging to a place and its contextual identity, therefore requires the rejection of the ‘tabula rasa’...”
.....

Some of the important aspects which are considered to broaden understanding (especially dealing a disposed asset of historical value) and subsequently employed for the recovery of Citadel of Mondovi are mentioned here under:

A. Overwriting

In an architectural project the act of overwriting something on the existing means to distinguish its important aspects of architectural space in

historical time i.e. the history and the memory of a place. The process of the overwriting works through additions and subtractions, removing, discarding what has no value, and, on the contrary, preserving the elements that define the character, history, memory and the identity of the place.

The important and critical step is the stratification of the objects which needs to be preserved or which can be discarded. In case of the Citadel of Mondovì, the transformation from 13th century medieval church to 19th century barrack is outlined. The various important political and religious events are stratified chronologically to understand the building blocks. And subsequently the functions and programs inserted reflect the association with its history of the Piazza (e.g. military museum to commemorate the military valor of Alpine troops).

.....
“... various important political and religious events are

stratified chronologically to understand the building blocks. And subsequently the functions and programs inserted reflect the association with its history of the Piazza...”

.....

While in case of discarding and subtracting components, some of the architectural additions done to the building blocks inside the citadel are removed which have no value. The sole reason being, to emphasize the original architectural features with greater significance.

B. Inclusion/Union

This process creates a union of different elements (with different functions or character) and creates a new entity. The process requires series of ‘relationship studies’ which are intended to add. A noticeable example of this process is the ‘Dora Park’ in

the city of Turin. An earlier industrial assest is put in a relation with various sports activities (in open feild under the metal structure). The technique has allowed to convert the place into a sports park where youngsters especially kids with their parents visit and enjoy the leisure time. Such facilities can be integrated to the open space of the Citadel of Mondovi (the disposed open court on the northern side). In union with the green public space and learning schools, it can create a new entity and atmosphere.

C. Adaptive Re-Use

The concept of adaptive reuse involves a change of use of existing buildings or structures according to the needs. Commonly, the objective of the process is to improve environmental, economic, social dimensions and last but not least the intrinsic values retention. The technique is applicable to various architectural typologies. In our case of Citadel of Mondovi, it can be employed to regenerate the large scale spaces (the

former barracks scattered inside the citadel). The new uses can cater to the existing needs of the Piazza Mondovi. A hospitality facility, open farmers market, art and crafts shops for tourists can be inserted into the existing structures.

D. Mixed-Used Programs

With the help of 'mixed-use' development idea, the spaces inside the citadel can be converted into social and economical hubs. With this, various functions with public facilities can be put together on a specific scale (with respect to the locality, demands and needs). This enables a diverse social environment which helps in boosting a live environment, not to mention of economic advantages. Mixed-Use projects also assists in targetting multiple social classes. It also offers mutiple activities irrespective of age; playing areas for kids, sitting and chatting places for elderly, shopping areas and parks for public, etc. This method has proved to be successful in promoting the socio-economic

prosperity.

E. Connectivity & Mobility

Abandoned properties can be reactivated through integrating the urban amenities with public mobility. The re-used assets will soon convert into ghost places if the accessibility is ignored and mobility hindered. Connectivity with the citadel can be enhanced through multi-modal mobility. Car sharing, bicycle and scooty sharing facilities across the piazza of Mondovi can help turning the disposed asset of citadel to a social and entertainment magnet.

H. Retail

The retail shops and big shopping malls are greatest and effective tools of attracting people to outdoor places. These elements can be integrated with other programs in the abandoned sites (Citadel of Mondovi) so that people from different walks and needs would come thus contributing for a lively environment. Various re-

tail shops with different items can be provided in order to cater diverse people.

I. Heritage Tourism

Some of the places have capacity for heritage tourism. Taking the advantage of these places in the context, they can be networked with neglected places (which have heritage value) in order to boost them too. Ultimately, with time they also become robust in their image and contribute for tourism of the area or city. This assists local artisans who commonly find difficulty in surviving the global markets. Interventions with such intent in the spaces of Mondovi can be designed. Printing and ceramic galleries are to be programed, as they are part of the local heritage of Mondovi. Local gastronomy facilities to be provided to enhance identity of the place.

J. Sports and Leisure

Societies have greater predilection

for leisure and sports. Kids and teenage contribute more in promoting the sports in a place. The nature of sports can vary; ranging from indoor activities to outdoor activities. Also adults and senior citizens are equally attracted by these factors. These elements can be employed and programmed in an abandoned place (with other programs) so that the people of different age would come to place at different times (according to their priorities). This will consequently help in the regeneration. The outdoor space of the citadel's recovery proposal will include this element too.

K. Arts and Culture

Artists have always proved to be instrumental in highlighting different issues and topics of society. With art being their primary mode of communication, they have strong impact in propagating the message across (especially to public). People with interest in art and culture often follow artists and their art. This be-

havior can be helpful in activating places. Different types of art especially performance art is greatly able to engage public which assists in increasing awareness. These elements can also contribute to engage public discourse of reclaiming abandoned places etc. With artist's residences next to museums in the citadel, such aspects can be covered.

.....
“...citadel of Mondovi can offer printing and ceramic galleries as they are part of the local heritage & local gastronomy facilities, retail stops for arts and crafts, and last but not least the architectural and cultural heritage of Piazza to enhance identity of the place...”
.....

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Chapter 02

Abandoned Sites (Cuneo & Mondovi)

2.1 STATE OF ABANDONED PROPERTIES IN PROVINCE OF CUNEO

In July 2019, a survey and report was published named as “Rigenerare spazi dismessi”, translated in English as ‘Regenerate Abandoned Spaces’ by the ‘Fondazione CRC’. Foundation CRC (Cassa di Risparmio di Cuneo Foundation); a non-profit, private and autonomous body, which ‘pursues purposes of social utility and the promotion of economic development’. It is primarily achieved through the disbursement of contributions to public and private non-profit entities.

In addition, through partnership with local entities for promotion of specific projects. The projects may range from ‘education, welfare, culture, art, local development, public health, scientific research and sports’. The Foundation operates in the province of Cuneo, mainly in the areas of main activity relating to the areas of Alba, Braidese, Cuneo, Monregalese. ‘Re-

generare spazi dismessi’ includes the territorial distribution of the disused assets in the province of Cuneo.

According to report, ‘449 abandoned buildings were surveyed in 126 municipalities out of 250 in the province of Cuneo’.

A map depicted the spread of abandoned territories throughout the provincial territory with the exception of eastern hilly areas, where the presence of such properties are lesser due to certain factors. These factors includes the lesser response from the municipalities, smaller territorial area and presence of tourism (triggering enhancement of abandoned properties).

.....
...according to report, ‘449 abandoned buildings were surveyed in 126 municipalities out of 250 in the province of Cuneo’...
.....



Image: Map of Municipalities Surveyed for Abandoned Assets in the Cuneo, Italy
Source: 'Rigenerare Spazi Dismessi' by Fondazione CRC (2019) - Graphics recreated by Author

The image below shows the density of registered abandoned buildings in the province of Cuneo. It is reported that the highest number of abandoned buildings are located in Mondovi i.e. 32. While second in the list is municipality of Cuneo which has 25 disposed assets. Majority of the assets were intended for military use. It is noted that those municipal-

ities which have higher number of such assets actually had greater role in past especially in border management and larger centers. Areas which have lesser quantity than 10 are mostly mountainous resorts or smaller areas.

.....
“... the highest number of abandoned buildings are

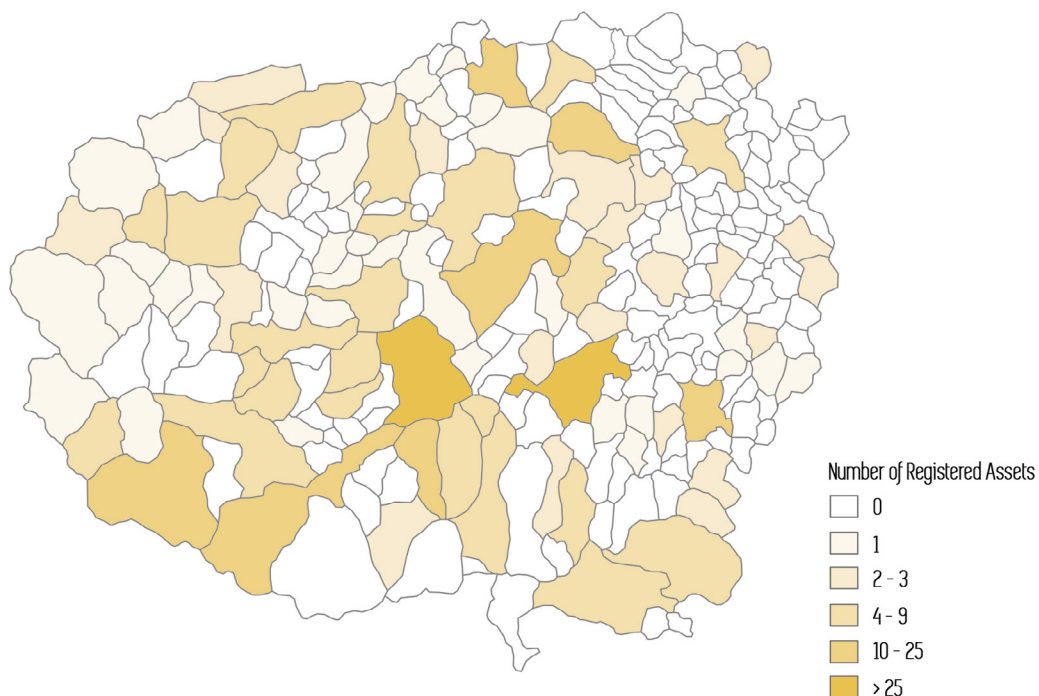


Image: Map of density of registered Abandoned Buildings in Province of Cuneo

Source: 'Rigenerare Spazi Dismessi' by Fondazione CRC (2019) - Graphics recreated by Author

located in Mondovi i.e. 32. While the 2nd on the list is municipality of Cuneo with 25 disposed assets.”

The following image shows the municipalities which have more than 9 disposed assets. The reason being;

municipalities have greater importance as ‘territorial extension’ and ‘demographic dimension’. These areas are Cuneo, Mondovi, Bra, Fossano, Alba, Saluzzo and Savigliano, which are also known as ‘sette Sorrelle’. The southern outposts mostly linked to defense located in Maritime Alps or Alpine valleys.

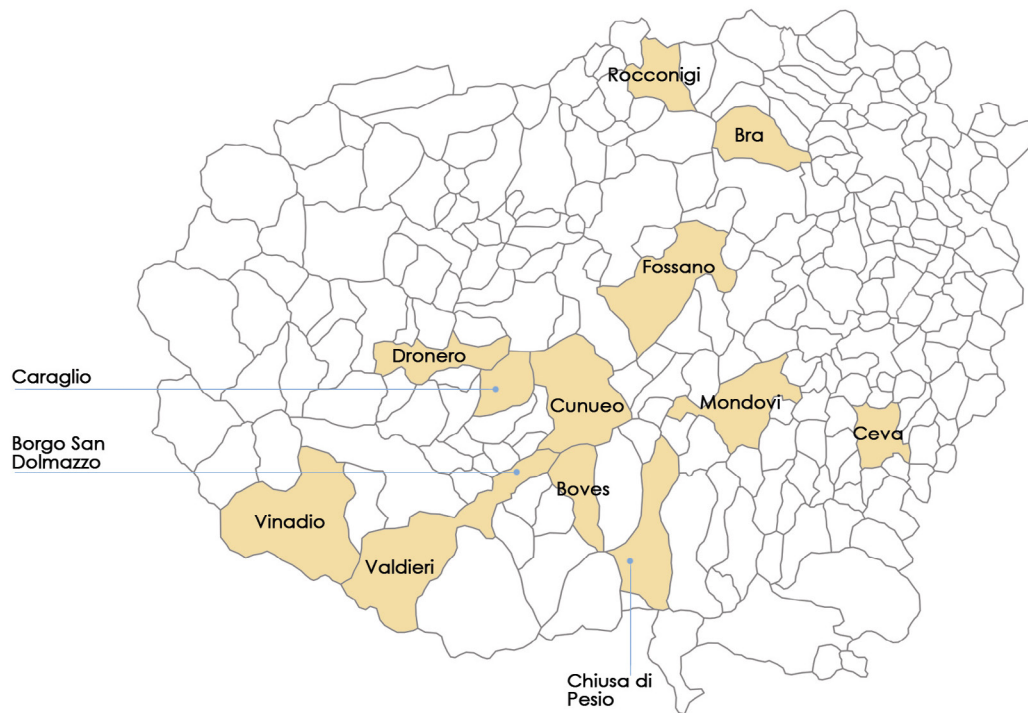
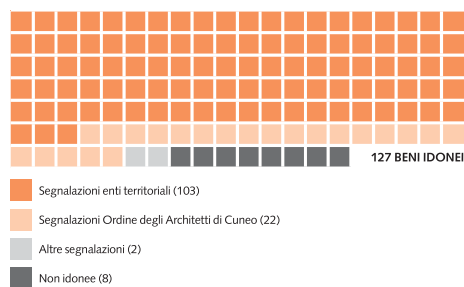


Image: Map of municipalities with more than 9 Abandoned Buildings in Province of Cuneo
Source: 'Rigenerare Spazi Dismessi' by Fondazione CRC (2019) - Graphics recreated by Author

The statistics collected regarding the unused assets (spread in the province of Cuneo) were verified through different sources and on different levels in order to make sure that the hypothesis to be made for re-functionalization (re-use for cultural purpose) would be decent. The 127 assets with cultural value are categorized into three major parts:



a. 103 assets located in 38 municipalities were reported by main local authorities

b. 22 properties located in 14 municipalities were reported by Order of Architects of Cuneo

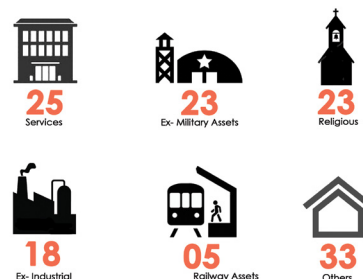
c. Properties located in 1 municipality come from other reports.

Image (top): 127 Disposed Assets reported by three different sources

Image (bottom): Disposed Assets w.r.t types

Source: 'Rigenerare Spazi Dismessi' by Fondazione CRC (2019) - Graphics recreated by Author

If the reported unused assets are categorized by types then there are 6 basic categories. The first category which also has the highest number of assets is; buildings utilized for services (like schools). This category has 25 assets. Second in the list are; the 'military buildings' which has 23 assets. Also, buildings once used for religious services are 23. The category of 'former industrial areas' has 18 while 'railway stations and buildings' have 5 assets. Those assets which don't fall into aforesaid categories are 33. (Refer image)



Note: The diagram (titled Disposed Assets in Province of Cuneo) on the last page shows the 247 municipalities with corresponding number of disposed assets. The total number of abandoned assets are 449.

2.2 LIST OF ABANDONED BUILDINGS, SITES AND SERVICES IN MONDOVI

According to repoted sources there are around 449 dismissed & disposed assets located in the Province of Cuneo. The goods are dispersed in the different comunes of Province of Cuneo.

Following is list of abandoned buildings, sites and services located in Mondovi. The list of the disposed goods was made from reports by local authorities. The list was updated in 2018. The list consists of 32 assets located in the territory. The buildings are not in use due to multiple reasons. (The list is on the following page.)

Names of Abandoned Buildings in Mondovi Piazza shown in GIS Map on the following Page:

- a. Ospedale Snata Croce
- b. Padiglione Michelotti-Bertone
- c. Ex-Caserma Giovanni Durando

- d. Ex caserma Reale dei Carabinieri
- e. Chiesa e Convento di Santa Chiara (ex-scuole Medie)
- f. Caserma Galliano
- g. Ex Convitto Vescovile/Ala Gabetti
- h. Ex-Collegio "La Madonnina"
- i. Convento di Santa Teresa/Ex Collegio

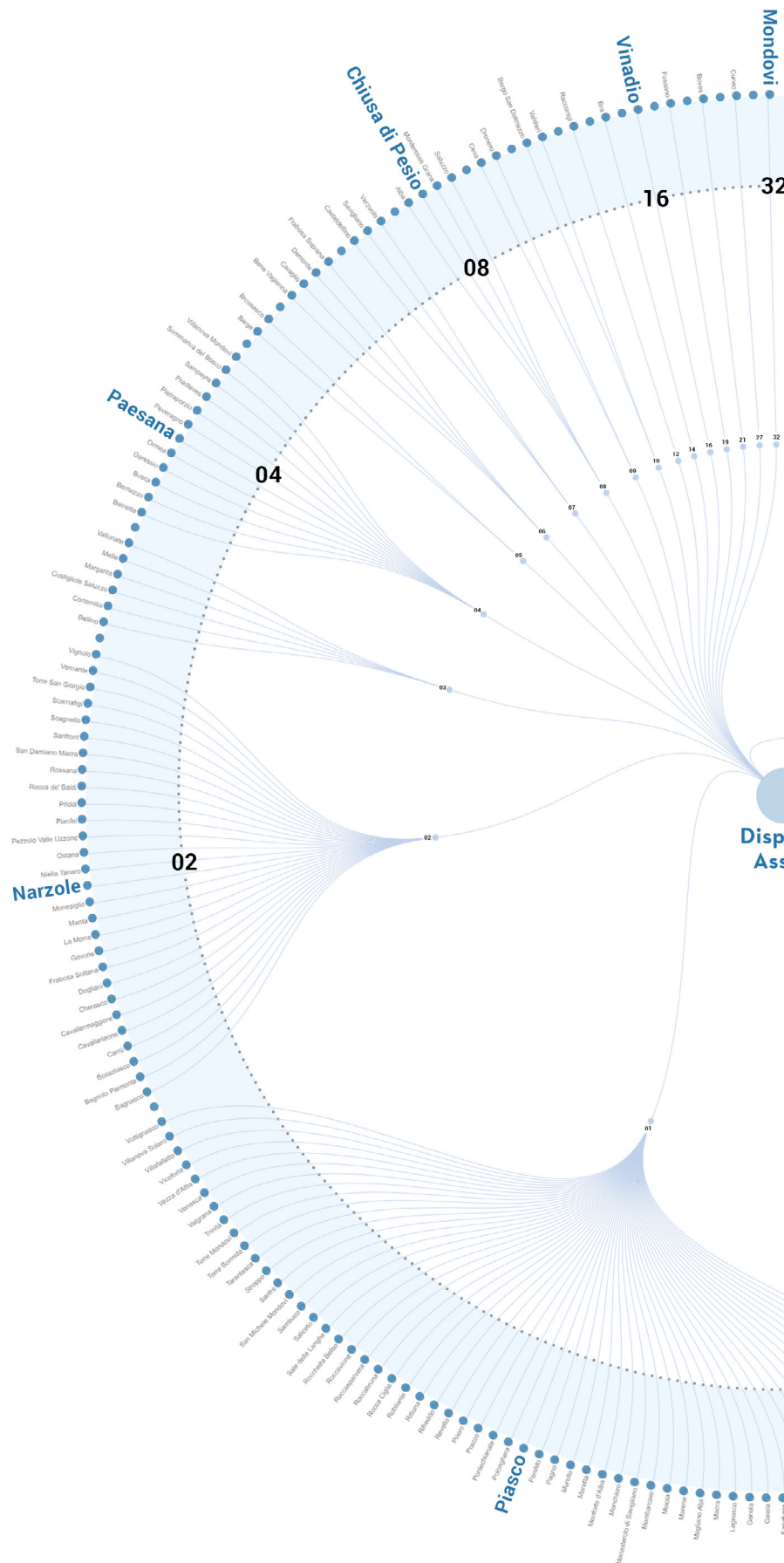
Note: There are some other unutilized assets in Mondovi Piazza mentioned by other sources not shown in this map.

.....

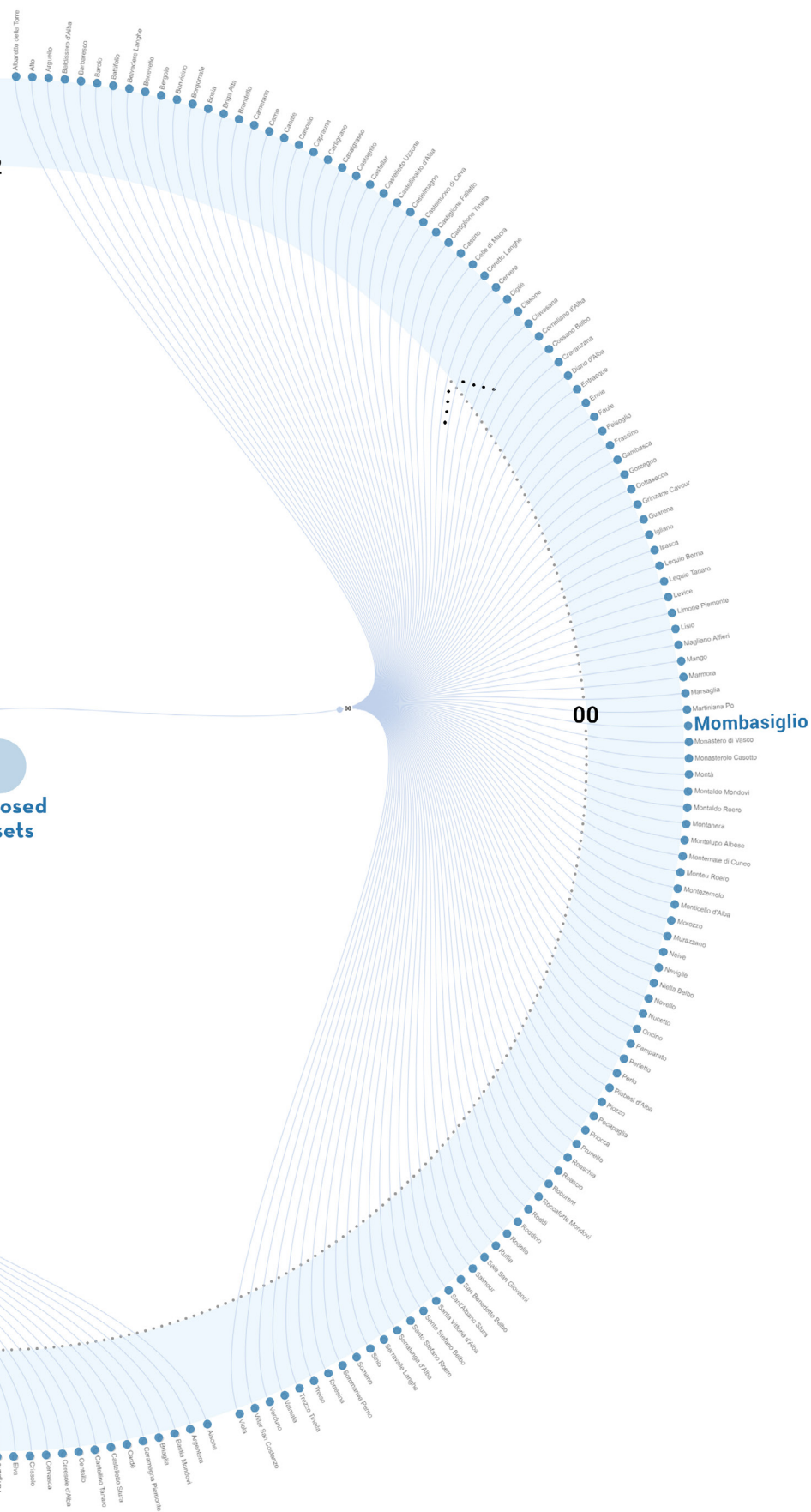
"There are 449 dismissed & disposed assets located in the Province of Cuneo, dispersed in different communes.

There are 32 assets in the municipality of Mondovi which are abandoned. The list was updated in 2018."

.....



Source: Diagram by Author & Information taken from
 'Rigenerare Spazi Dismessi' by Fondazione CRC (2019)



ineo w.r.t Quantity of Disposed Assets
Total No. of Muicipalities: 247

LIST OF DISPOSED GOODS IN MONDOVI (updated June 18, 2018)		
COMMUNE	NAME OF ASSET	REFERENCE SOURCE
Mondovi	Caserma Galliano (10 blocks)	Local Authority Reports
Mondovi	Chiesa di Sant' Evasio	Local Authority Reports
Mondovi	Chiesa di Santa Chiara	Local Authority Reports
Mondovi	Ex ospedali	Local Authority Reports
Mondovi	Piccola casa	Local Authority Reports
Mondovi	Ceramica Musso poi Richard Ginori	Bibliographic Source
Mondovi	Fabbrica di Birra	Bibliographic Source
Mondovi	Mulino di Carassone	Bibliographic Source
Mondovi	Mulino delle Ripe	Bibliographic Source
Mondovi	Molino Lavagna	Bibliographic Source
Mondovi	Mulino vecchio di Pogliola	Bibliographic Source
Mondovi	La Galera (setificio)	Bibliographic Source
Mondovi	Setificio Cordero di Pamparato	Bibliographic Source
Mondovi	Aree dismesse	Confindustria Piemonte
Mondovi	Aree dismesse	Confindustria Piemonte
Mondovi	Capannone automezzi (2 Blocks)	List of disused State Property 2017
Mondovi	Ex Caserma Durando	List of disused State Property 2017
Mondovi	Stazione Mondovì Ellero	Atlas disused Railway Lines
Mondovi	Stazione Mondovì Breo	Atlas disused Railway Lines
Mondovi	Ex stazione Pogliola	Unattended Stations

Image: List of Abandoned Goods in Mondovi
Source: Rigenerare Spazi Dismessi (Fondazione CRC)

2.3 PROMINENT ABANDONED PROPERTIES IN MONDOVI PIAZZA

Description

There are around 10 abandoned/un-utilized properties located in/around Mondovi Piazza. The buildings were constructed in different era for different purposes. Programs and functions changed according to needs of the time. But unfortunately, currently the assets are empty due to various reasons. The assets are continuously under the process of physical decay due to lack of proper attention and maintenance. And sometimes are misused and places for delinquencies by stragglers, young school students etc. And in some cases, the situation is due lack of coordination between state and municipalities. Not to mention of lack of sustainable economic and social strategies to rejuvenate them.

Some of the buildings are discussed here (next pages) to comprehend

and get a general overview of state of these local assets.

.....
“Around 10 abandoned assets are located in Mondovi Piazza. These assets are under the continuous process of deterioration and decay.”
.....

The images (maps) shown here in the section on the following pages is the mapping of the abandoned assets which are located in Piazza Mondovi. In the first map the assets have been mapped in GIS on to the map of the Piazza Mondovi. As it is obvious the disposed assets are scattered across the Piazza.

While in the 2nd map, the assets have been highlighted with respective name. And primary data regarding the dates of their disposal in or-

Abandoned Sites (Cuneo & Mondovì)

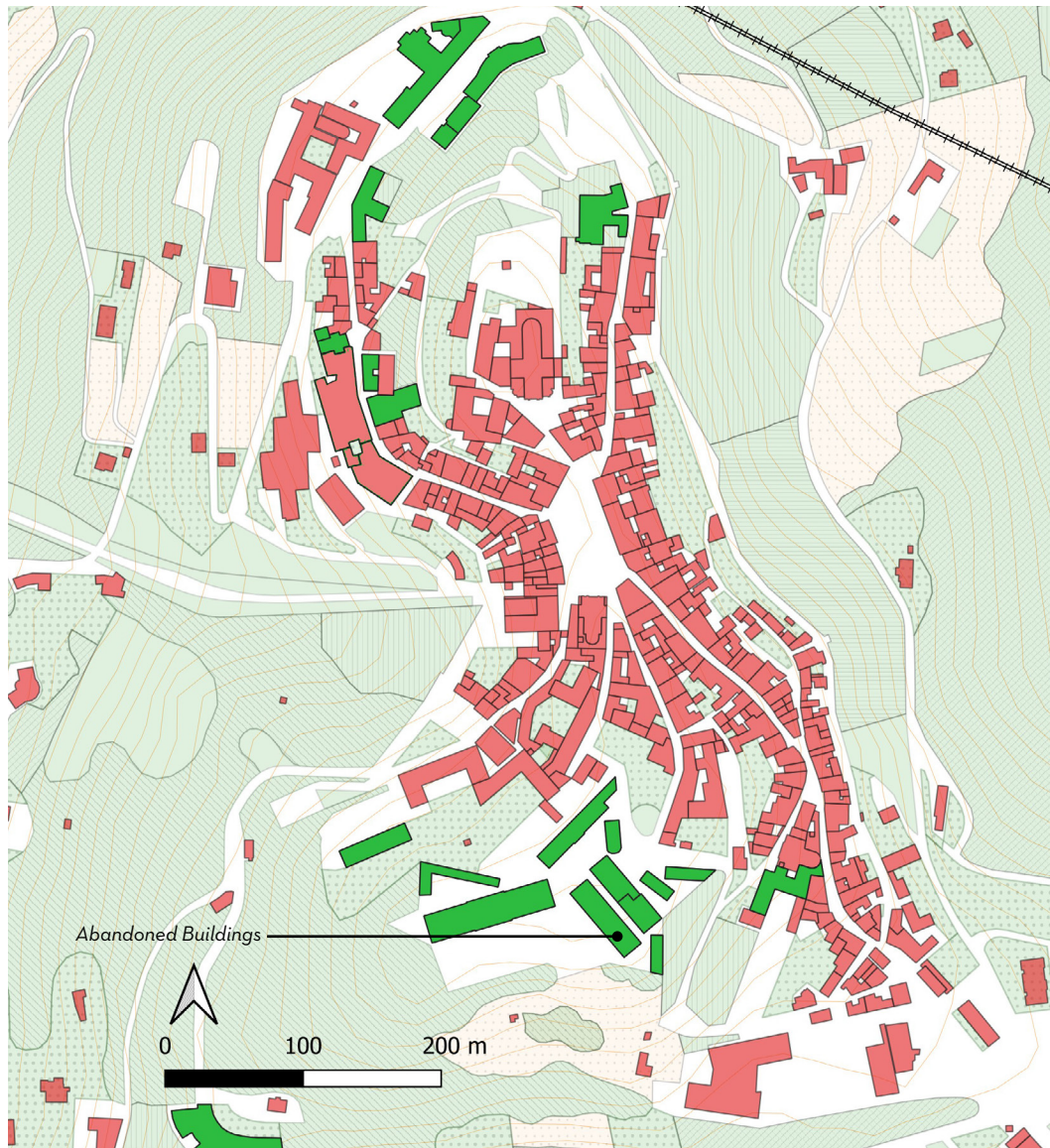


Image: Map of Abandoned Buildings in Mondovì Piazza
Source: GIS Software by Author (data from Openstreet-map, Comune di Mondovì)

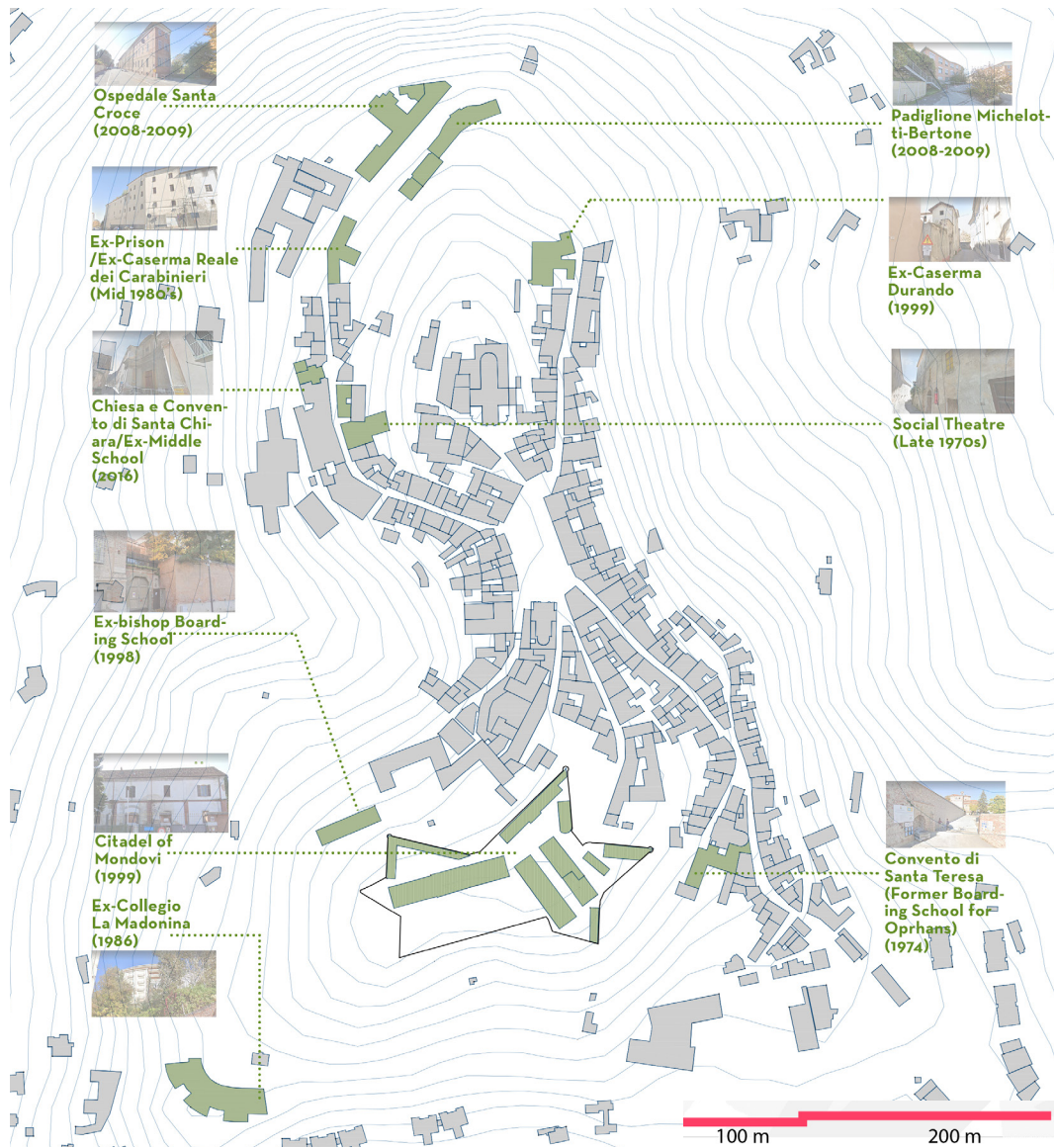


Image: Map of Abandoned Buildings in Mondovi Piazza
Source: Map and Image by Author with GIS Software
(data from Openstreetmap, Comune di Mondovi)

der to get a general overview of the state of disposed assets.

A. Ospedale Santa Croce, Mondovi

The existing building fabric of 'Ospedale Santa Croce' is located on the northern tip of Mondovi Piazza hill. The large building was designed by the famous Monregalese architect and engineer Francesco Gallo (1738-61). The location of the building is wonderful as it provides



Image: Ospedale Santa Croce, Mondovi
Source: <http://www.samuelesilva.net/blog/2016/04/29/ex-ospedale-di-mondovi/>

clear views to the landscape of Mondovi city. According to the reports the province took the possession of the asset back in 2010. As per governmental agreements, parts of the existing schools located on Piazza would be transferred to this building. Unfortunately the plan has not been carried out. And the building is left abandoned.

.....
“...the hospital was shifted in 2009 to another building in the outskirts of Mondovi. A school was to be transferred to the building as per government plans but not carried out yet...”
.....

The building consists of 4 floors above ground. The hospital structure, which also includes the Michelotti-Bertone Pavilion, has a total area of 4,717 m². The old hospital was transferred in April 4, 2009 to



Image: Ospedale Santa Croce, Mondovi
Source: <http://www.samuelesilva.net/blog/2016/04/29/ex-ospedale-di-mondovi/>

the new “Regina Montis Regalis” hospital. It is currently located on the outskirts of Mondovi. The building has gone through substantial decay and damage. Though the building has not been renovated in anyway but in 2016 the entry perimeters were closed. The decision was made in order to control ‘unauthorized intrusions’ (reported) and passage of vehicles in the courtyard of the site.

B. Ex Collegio “La Madonnina” | Mondovi

The former college is located on the of southern slope of the Mondovi Piazza, facing the city of Mondovi. It was designed and build in 1956 to 1960. The building consists of 11 floors. It has an area of 16315 square meters. The college was closed.

The boundary wall which delimits the college were damaged by the rainfall and subsequent landslide. The building is left abandoned and

authorities have shown concerns over the property in light of protection of landscapes, environmental and identity heritage of the city.

.....
“...the building hosted a college which was closed. Rainfall and land slidding has caused damages in the perimeter of the building. It was bought by private entrepreneurs to convert it to residential tower but work has been delayed...”
.....

It was bought by private entrepreneurs to convert into an elegant residential complex in the green of hill of Piazza. But work has been delayed for years not no signs of initiation. The image shown here of the disposed asset depicts the state of the disposed asset. The state of the deteriorated building components is blatant.



Image: Ex-Collegio 'La Madonnina', Mondovi
Source: <https://www.targatocn.it/2017/02/02/leggi-notizia/argomenti/attualita/articolo/mondovi-lex-collegio-della-madonnina-potrebbe-ospitare-dei-profughi.html>

C. Ex-Caserma Giovanni Durando | Mondovi

The building is located on northern side of the piazza housed the judicial prisons for a certain period and later served as the Carabinieri barracks. In the eighteenth century it was also intended to host the “Retreat of the Orphans”, founded by decree of Bishop Isnardi (April 2, 1703). The building has an area of 2236 square meters. The place is not any more a functional army barracks. And the services inside the building have been ceased. They have been relocated to other parts of province.

The former Durando barracks, in the Mondovi piazza are in state of



Image: Ex-Caserma Giovanni Durando, Mondovi
Source: <https://www.lastampa.it/cuneo/2017/01/14/news/caserma-durando-uno-scempio-1.34668640>

utter decay. A cleaning process was undertaken in order to eradicate writings/graffiti on the walls and secure the entries. But all proved to be vain attempts. Young students from schools of neighborhood invade the place. The municipality has felt helpless (to take regenerative measures) due to lack of funds. It has gone under the control of state with other military barracks and headquarters.

.....
“...the services which the ex-caserma offered have been moved. Vandalism was prominent due to lack of regeneration efforts and scarcity of funds. It is under the control of state with other barracks...”
.....

In 2018, negotiations held between the municipality and a private entrepreneur to design housing as a restoration step. The property was



Image: Ex-Caserma Giovanni Durando, Mondovi
Source: <http://www.samuelesilva.net/blog/2017/01/16/caserma-durando/>

bought by 'Immobiemme srl'. Also, provision of parking space will be provided to municipality as part of agreement which has become a problem in the area.

D. Convento di Santa Teresa (Ex Collegi) | Mondovi

The complex is located on the southern slope of Piazza. The current structure is the result of numerous interventions that took place between 1612, the year of the settlement in the area of the Discalced Carmelite fathers of Santa Teresa



Image: Convento di Santa Teresa (Ex-Collegi), Mondovi
Source: <https://earth.google.com/web/search/Convento+di+Santa+Chiara+mondovi>

who in 1637 began construction, and 1802 when they took over the Institute delle Orfane, then suppressed in 1974. The former college of orphans is a 3 story historic building. Reason for abandonment was; the institute of orphans was suppressed.

.....
“...the structure is result of additions in different eras. Previously it was a college for orphans when was then suppressed. Currently some of spaces inside have been re-used. While for the rest, a redevelopment has been proposed...”
.....

It was formerly seat of printing museum but today it is used partially. With economic contribution of CRC foundation, a redevelopment intervention has been already proposed and have started work. The spaces will be dedicated to different usages.



Image: Convento di Santa Teresa (Ex-Collegi), Mondovi
Source: <https://www.fondazioneccrc.it/index.php/blog/130-news/blog/458-interventi-faro-a-mondovi-rinascita-il-polo-culturale-ex-orfane>

Part 2: The Case Study

Chapter 03

Citadel of Mondovi Piazza

3.1 CITADEL & BARRACKS

Giuseppe Galliano barrack, Massimo Lungo Barrack, Guido Poli Barrack and Angelo Bertolotti Barrack are names associated to different building blocks to the former military barracks, located inside 'Citadel di Mondovi', on the southern tip of Mondovi Piazza (Mondovi Comune). Located on an elevated area of Piazza, it has a strategic location as the other parts of the territory (like Breo, Vicoforte etc.) are easily visible from the place. The history of the site of barrack goes back to the history of the first settlements in Mondovi Piazza in end of 12th century and start of 13th century when a church was built on the hill, the then called 'Mons Vico'. It was the first inhabited nucleus of settlements on Piazza. The buildings with the defensive walls of Citadel of Mondovi has gone through multiple transformations in different eras. They were modified and appropriated according to needs and requirements of the time. The details are

mentioned in the next pages with timelines and supporting archival documents.

.....
“... Galliano barrack, Massimo Lungo Barrack, Guido Poli Barrack and A. Bertolotti barrack are names associated to different building blocks to the former military barracks, located inside 'Citadel di Mondovi'...”
.....

Overview

The “Giuseppe Galliano” barrack was built between 1870 and 1880. Currently, the complex or citadel of Mondovi (which is surrounded by a defensive brick structure) consists of three main buildings and other minor buildings, on the southern elevated point of the Piazza of the Monregalese city. A characteristic of the whole structure is its irregular shape.

The courtyard is divided into several parts arranged on different levels. The largest has an area of four thousand square meters, limited by the surrounding wall overlooking the ancient Citadel.

The 'Citadel di Mondovi' located on the hill of Piazza was built between 1573 and 1576. It stands on the site of a cathedral (St. Donato Cathedral), which was built on a medieval church (St. Donato Church). The church has gone through various changes in different eras. At the time, the Duke of Savoy, Emanuele Filiberto, considered one of the two highest points on the Mondovi hill, essential for the defense of his states. He therefore decided that the Cathedral of St. Donato should be demolished and a fortified place, the so-called "Citadel di Mondovi" would be built.

Over the years, it was the seat of Savoy, Napoleonic and forerunners of the finance guard. In November 1874, the first Alpine department in Mondovi was headquartered in the old Jesuit college (today, Palazzo del

Tribunale). A year later they were placed in the citadel after the construction of the "Galliano". It was the seat of the 1st Regt command. Alpini, of the Btg "Mondovi" and command of the 1st deposit. Over time other departments of the 1st transited, but always for short periods.

.....
"...'Citadel di Mondovi' was built around 1573-1576. While the barrack was built between 1870 and 1880. The citadel has 09 edifices of different scales with courtyards divided into several parts, on different levels. It has an irregular shape..."
.....

In the period 1943-45, it was the seat of RSI and Wehrmacht troops who also used it as a prison. From 1953 it was once again the seat of the re-constituted "Mondovi" until its transfer in 1962.



In October 1972 the Guardia di Finanza took over the barracks, to use it in 1973 as the headquarters of the Allievi Financieri of the 3rd battalion, suppressed in 1999. Currently, although it remains the property of the State, it is granted on loan, to the Municipality that uses it for recreational purposes. In addition, it is home to the Museum³ dedicated to the 1st Alpine Regiment.

.....
“...currently, the citadel is the property of the State, it is granted on loan for use, to the Municipality that uses it for recreation. It is home to the Museum of 1st Alpine Regiment...”
.....

Image: Caserma Giuseppe Galliano, Mondovì

Source: Unionemonregalese, Italy

3. The small scale museum is limited to the smallest block of citadel while rest of property is abandoned. (Refer chapter 10 - Site Survey)

3.2 BACKGROUND (SOCIO-POLITICAL EVENTS)

The barracks inside the citadel and the city cathedral are the two parts which are easily noticable from the hills of Fiamenga and from the road leading to Villanova. Each entity is located on the elevated points of the Mondovi Piazza. A depression in the middle is area of the Piazza Maggiore. Linked to the two emerging hills there is a whole story that has its roots in the Middle Ages, in the time of the struggles, to free themselves from the dominion of Lords who, from afar, had the right of life and death over the inhabitants of Monteregale.

In those perilous times, on the place where the Cathedral dedicated to San Donato now stands, there was a Monastery of the Franciscans and the place confirms this not only by tradition but even history, was visited and sanctified by the presence of the Patron Saint of Italy, San Francesco d'Assisi. The religious Authority of

the time had raised the Cathedral on the other high point as to establish that the only authority is Religious - which in those times represented the only lifeline for the frightened people.

Then with the arrival of the Princes of Savoy and the decline of the Bishop of Asti, the situation underwent a major change, despite the Mondovi being the seat of diocese. The monastery decayed, and then moved to another location, the Bishop gave orders to build another Cathedral where the church of the convent stood because the Duke of Savoy, for the defense of his states, given the position that had one of the points from the high ground of Mondovi, he decided that the Cathedral should fall and, a fortified place, the so-called Citadel, would rise.

On the other hand, it was also a logical consequence: an attack on Mondovi could not come from Carassone because the difference in altitude is large and the ascent is steep, and then because from the Belvedere

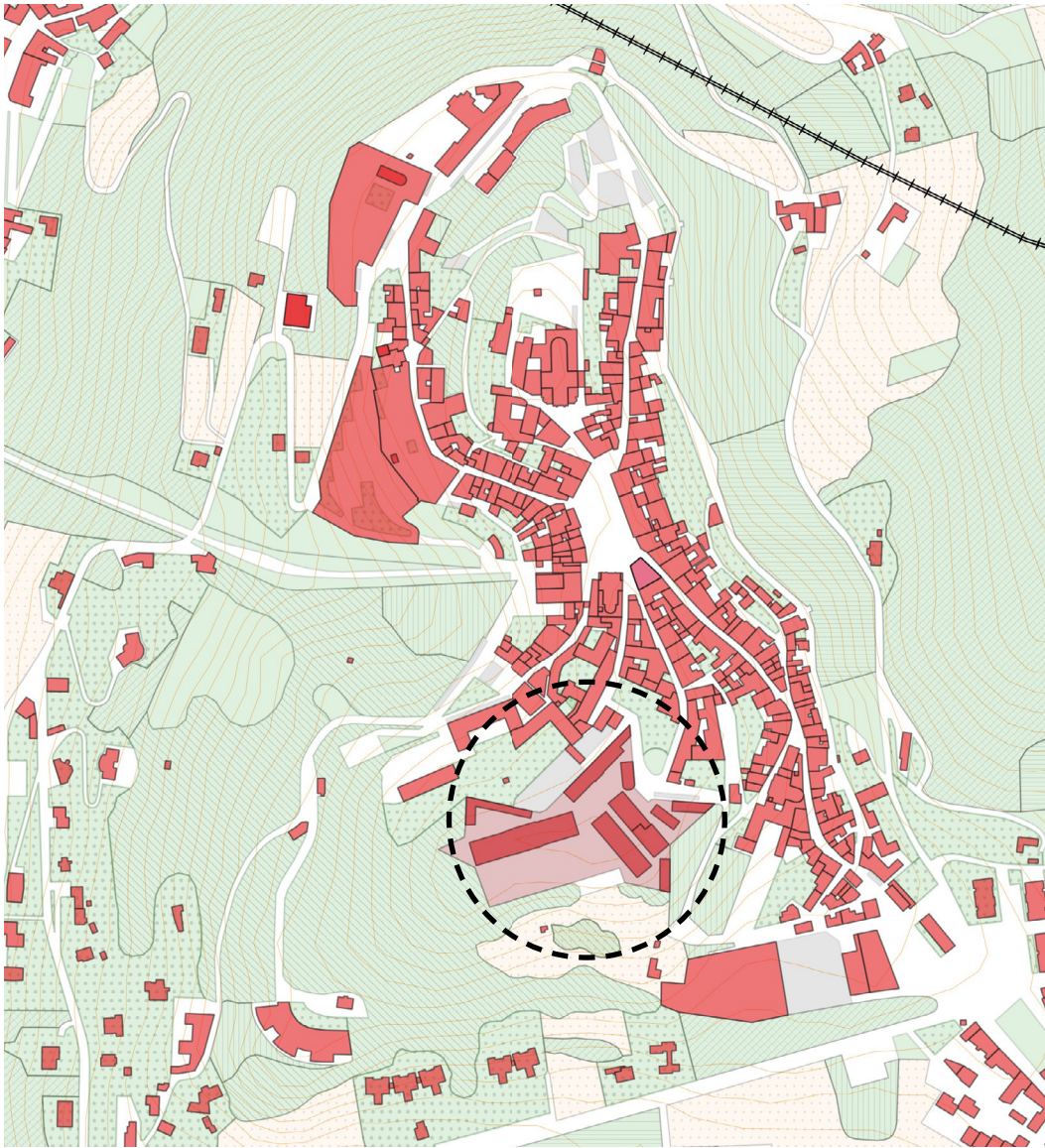


Image: Caserma G. Galliano Highlighted in the Map
Source: GIS Software by Author (data from Openstreet-Map)

it is easy to control the whole plain while it could be easier an attack coming from Vicoforte and Fiamenga.

.....
“...the Duke of Savoy, for the defense of his states, given the position that had one of the points from the high ground of Mondovi, he decided that the Cathedral should fall and, on its ashes, a fortified place, the so-called Citadel, would rise...”
.....

The citadel then came. It was irregular according to the trappings of military architecture and the builders had to take into account the topography. After the Napoleonic era, in the citadel there were other departments that, from Mondovi, left for the fields of the Risorgimento battles. And the citadel remained there to watch, from above.

Then came the new era, began in October 1872 when, with a signature under a decree, King Vittorio Emanuele II gave birth to the alpine departments. At first the Alpine companies were located in strategic points in the Alps.

In November 1874, finally, did the first Alpine department arrive in Mondovi but, ironically, it was not hosted in the citadel but was quartered in the old Jesuit college.

Only later, and with good reason, the Alpine troops were placed in the most suitable place - in the citadel. The troops could do surveillance of the whole territory easily from the citadel and they had to look until May 1915, when the alliances were reversed and France returned to being the natural ally of Italy.

.....
“After 1872 Alpine troops were placed in the citadel.”
.....

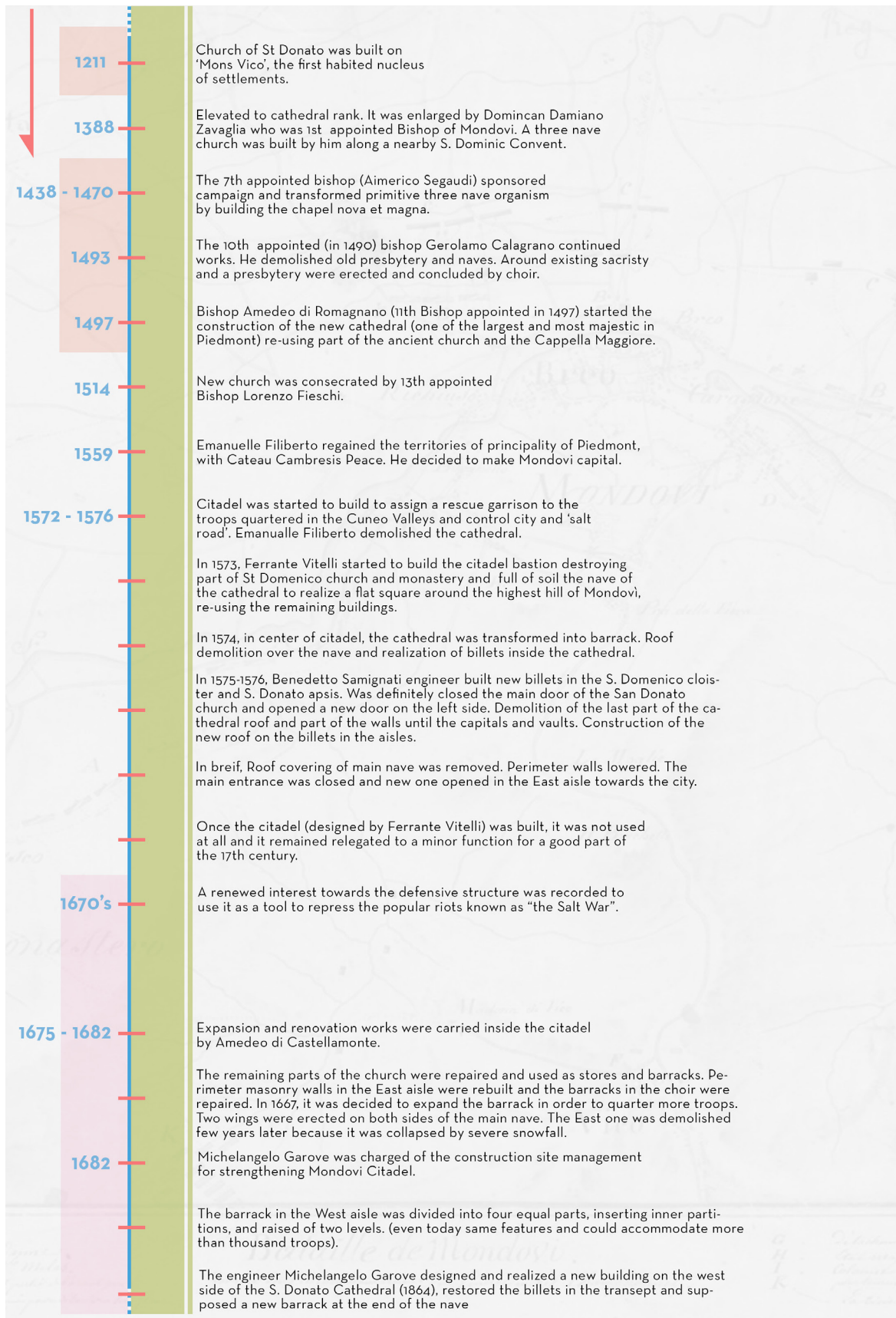
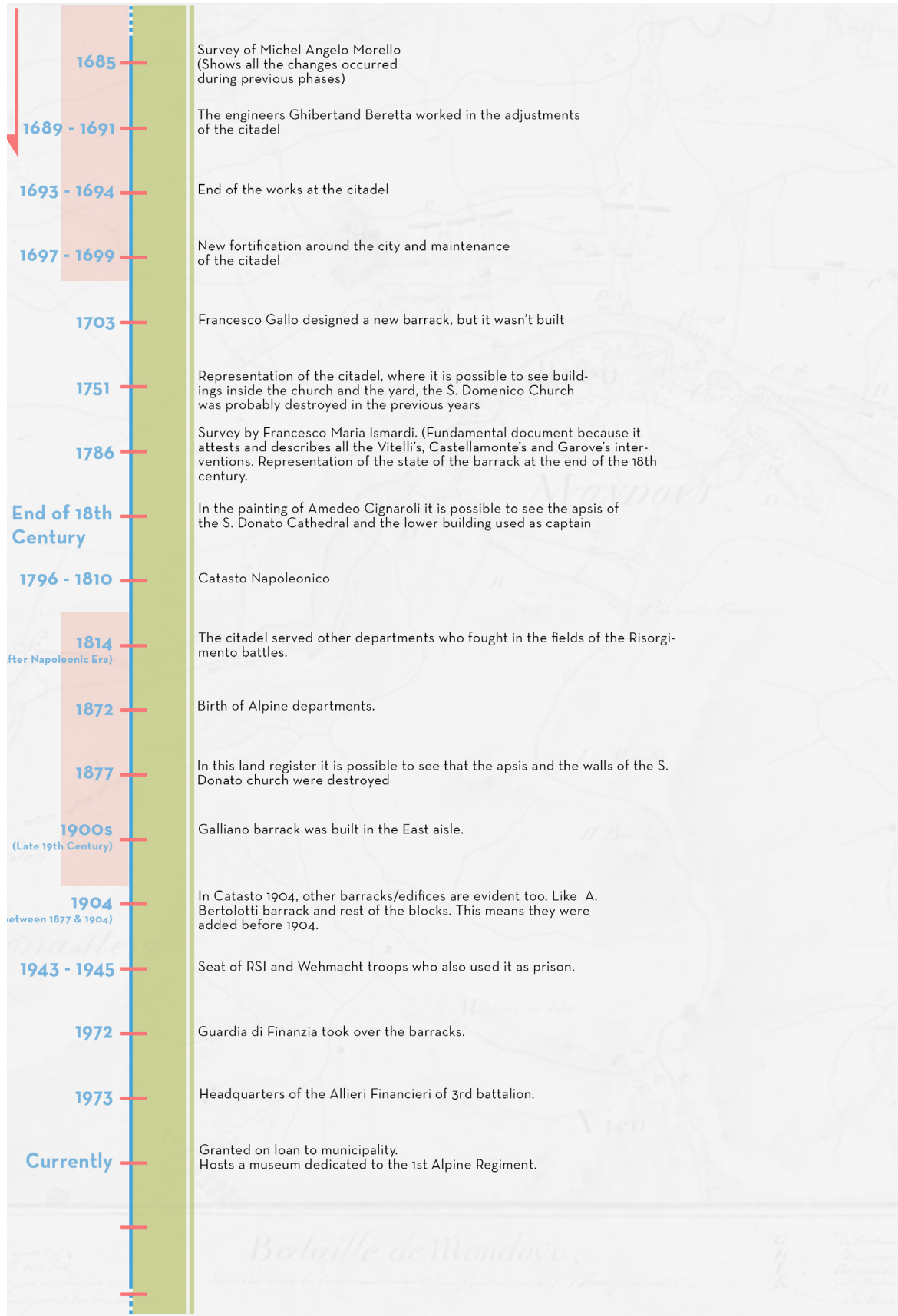


Image: Chronological Timeline of Important Events
(Red color band to differentiate era), Source: By Author



3.3 IMPORTANT EVENTS IN THE TRANSFORMATION OF CITADEL OF MONDOVI

Origin

The ancient church of St. Donato was built on the Mons Vico - the first inhabited nucleus of the settlement that was to become Mondovi. The first news pertaining the church date back to 1211, but it was only in 1388 that it was elevated to the Cathedral's rank and became a reference

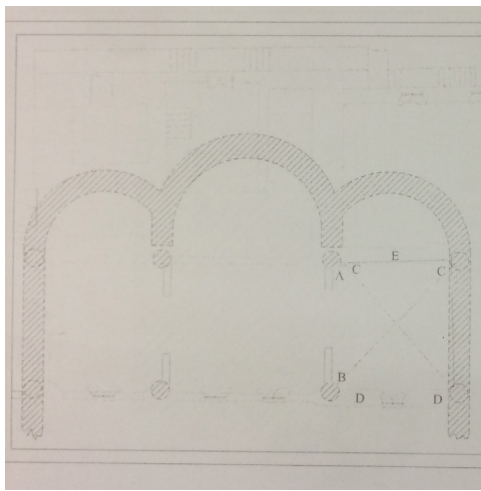


Image: Construction of Cappella Maggiore in North Aisle of Medieval Church
Source: Elisabetta CHIODI, 2004 (La "superba cattedrale" nella Cittadella filibertiana) - Also refer to other important sources mentioned in 'Timeline of Citadel' to be added in last section

for religious center. It was enlarged by the Bishop Dominican Damiano Zvaglia (the 1st appointed Bishop of Mondovi) who built a three naves church with East-West orientation along with a nearby St Domenico convent.

.....
“...the ancient church of St. Donato was built on the Mons Vico, the first nucleus of settlements. The first news regarding church date back to 1211...”
.....

The first works' campaign was sponsored by the Bishop Aimerico Segaudi (the 7th appointed Bishop to the place) who, between 1438-1470, transformed at least a part of the primitive three naves organism by building the chapel 'nova et magna' (new and great).

The Bishop Gerolamo Calagrano (the 10th appointed Bishop in 1490) continued the works, from 1493 on, demolishing the old presbytery

and the naves. Around the existing buildings, the sacristy & a presbytery were erected and concluded by the choir. Then, bishop Amedeo di Romagnano (11th bishop appointed in 1497) started the construction of the new cathedral re-using part of the ancient church and the Cappella Maggiore (shown in the image). The new church was consecrated in 1514

under 13th bishop - Lorenzo Fieschi.

.....
 "... the church was elevated to cathedral in 1388 which was transformed by appointed bishops in different eras..."

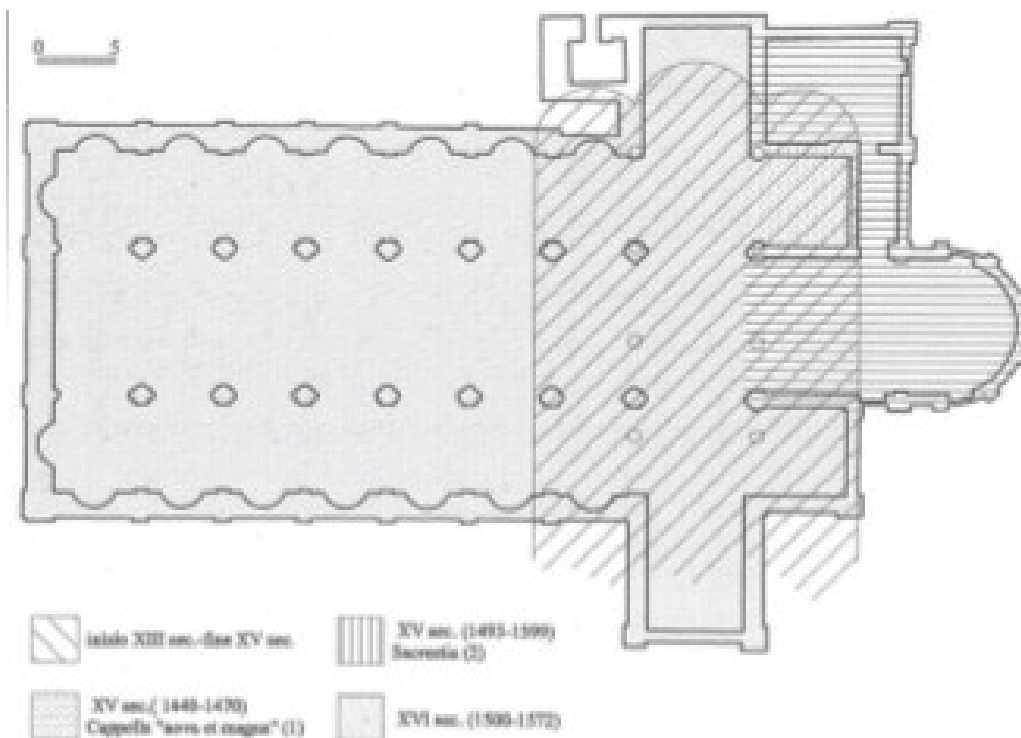


Image: Demolition of Medieval Church except Cappella. And Construction of Cathedral (Superimposition)
 Source: Elisabetta CHIODI, 2004

Citadel of Mondovi Piazza

By the time Emanuele Filiberto regained the territories of Principality of Piedmont, with the 1559 Cateau Cambresis peace. Mondovi was one of the richest cities of Piedmont to the point that the duke decided to settle here the capital, while waiting to return to Turin.

From the defensive point of view, the

city was divided in two parts: in the North part structures of the medieval layout were still present, while in the South, where the St Donato cathedral had been founded, the area was characterized by the presence of two bastions and a platform. To assign a rescue garrison to the troops quartered in the Cuneo valleys, the citadel was built starting from 1572.

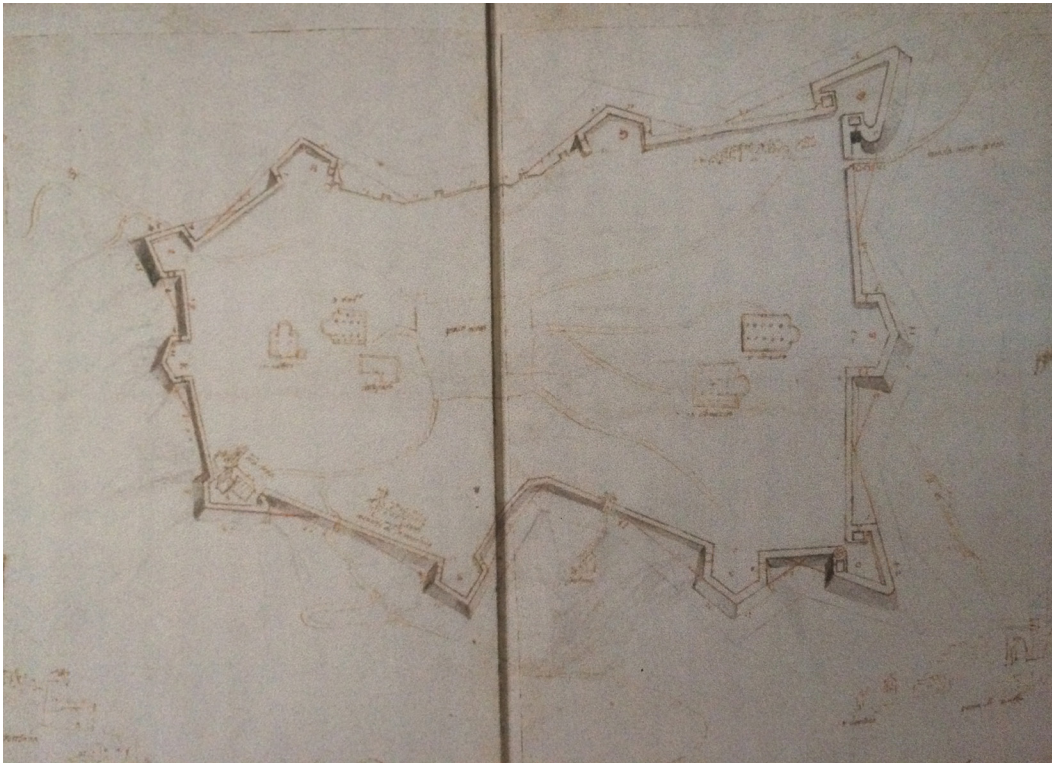


Image: Mondovi Piazza before Citadel's Construction
Source: ASTo, Corte, Biblioteca antica, Manoscritti, *Architettura Militare, Mondovì, Pianta della città e delle fortificazioni con dettagli in prospettiva*, vol. I, f. 55v/56, [ante 1573]

And it was strategically placed to control the “salt road” apart from being a measure to control the city.

.....
“To assign a resuce garrison to the troops quartered in Cuneo valleys, the citadel was built starting from 1572,

to control ‘salt road’ and city.”
.....

The citadel was built on the tallest part of Mondovi Piazza (with an irregular polygonal perimeter with six tips, following the site’s orography) which involved the partial demolition and incorporation of the preex-

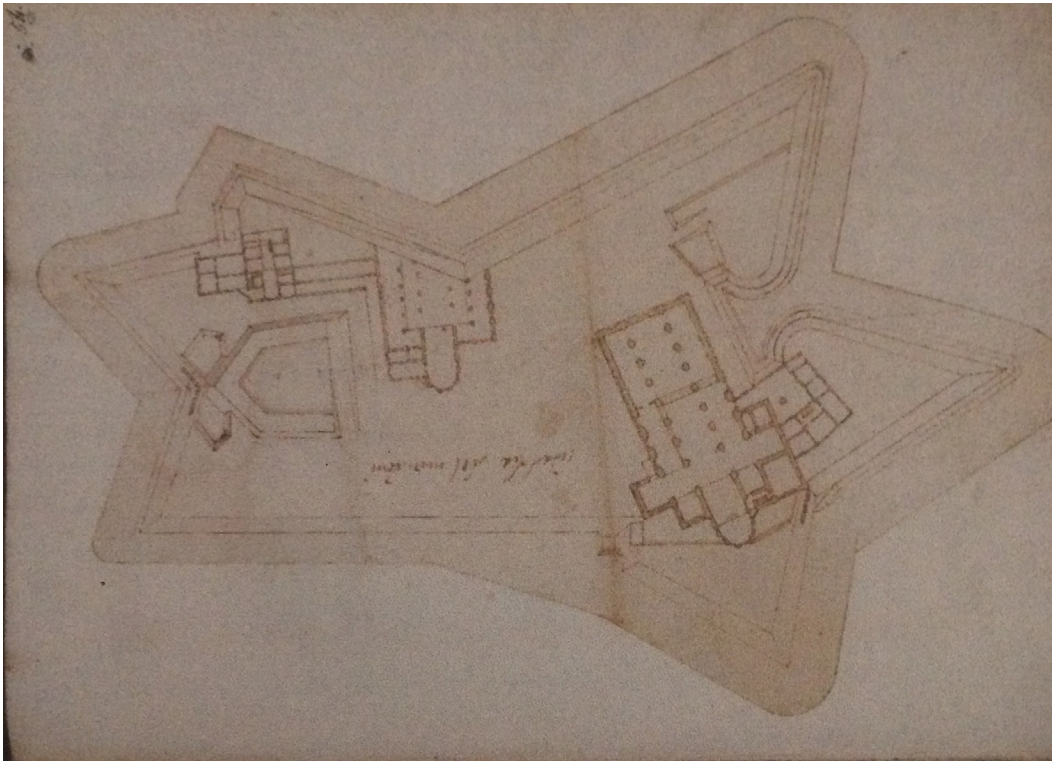


Image: Demolition of the Dominican Monastery & Church inside Citadel

Source: ASTo, Corte, Biblioteca antica, Manoscritti, Architettura Militare, Cittadella del Mondevi, Ferrante Vitelli, 1573, vol. I, f. 57[ante 1573]

isting buildings in the new defensive structures, including the St Donato Cathedral, the church and the monastery of St Domenico. The work carried in 1573 by Ferrante Vitteli also comprised of filling nave of cathedral with soil in order to make a flat square.

In the center of the Citadel the cathedral was transformed into a barrack (reusing the existing building), in the portions corresponding to the transept and choir, the roof covering of the main nave was removed and the perimeter walls lowered. The billets were made inside the cathedral. In 1575 - 1576, Benedetto Samignati

engineer built new billets inside the the S. Domenico cloister and S. Donato apsis. The main entrance of San Donato was closed and a new one opened in the East aisle towards the city (on left side). Demolition was carried out in the last part of the cathedral roof and part of the walls until the capitals and vaults. And the construction of new roof on billets in the aisles was carried out.

.....
“In the center of citadel the cathedral was transformed into a barrack.”
.....

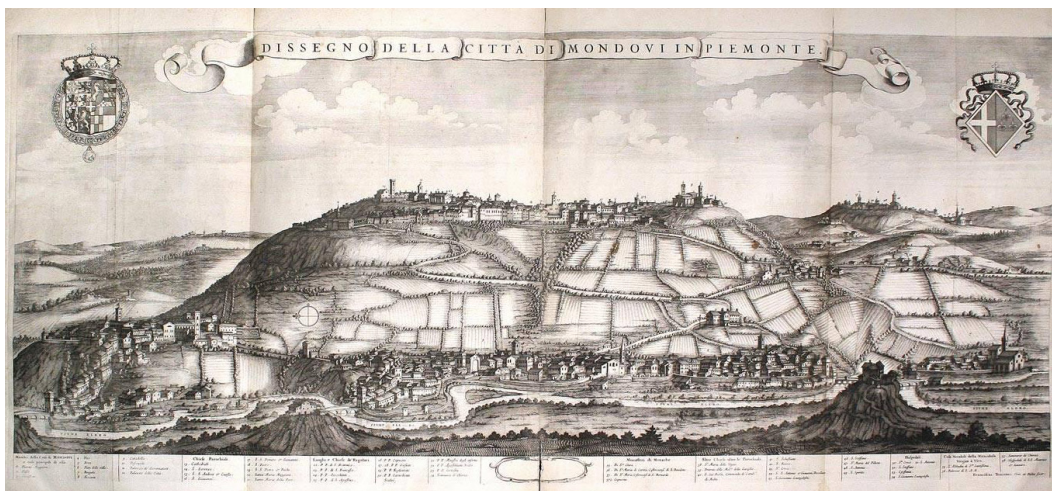
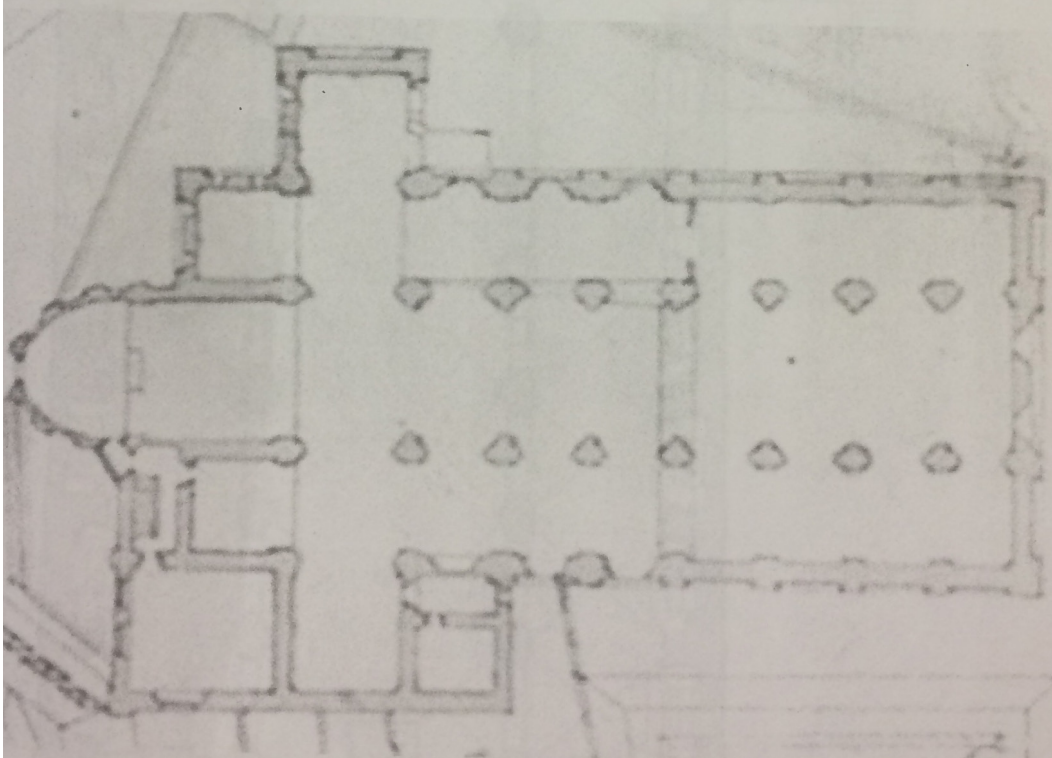


Image: Transformation of S. Donato and Bastions
Source: *Disegno della città di Mondovì in Piemonte*,
Francesco Toscano, in *Theatrum Sabaudiae*, 1662, vol.
II, 38



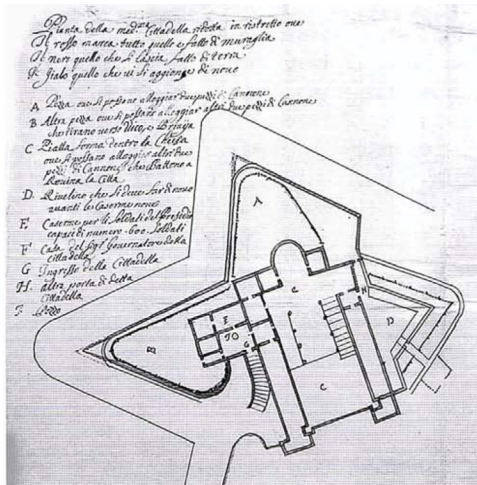
The Citadel's perimeter conformation varied very little during the following centuries, and still nowadays it is recognizable in the Mondovi's Piazza upper part. However the constructions inside the Citadel were significantly modified reaching the present configuration.

Once the Citadel (designed by Fer-

rante Vitelli) was built, it was not used at all and it remained relegated to a minor function for a good part of the XVII century. A renewed interest towards the defensive structure was recorded beginning from the 1670's, when the Mondovi's Citadel resulted as a fundamental tool to repress the popular riots known as "the salt's war."

Image: Cathedral after Changes (Door to left)

Source: ASTo, Corte, Biblioteca antica, Manoscritti, Architettura Militare, Cittadella del Mondevi, Ferrante Vitelli, 1573, vol. I, f. 57[ante 1573]



“Once the citadel was built it was relegated to minor functions. But a renewed interest recorded from the 1670’s, when the Mondovì’s Citadel resulted as a fundamental tool to repress the popular riots known as “the salt’s war.”

From 1591 - 1681, couple of other designs were proposed for the appropriation (adjustments done for

ImageB: Hypothesis: Two Buildings on each side of aisle and a Bastion on West Side

Source: ASTo Corte, Paesi per A e B Provincia di Mondovì, Mondovì, Disegni della Cittadella del Mondovì cioè uno dello Stato in cui s’è trovata e l’altro in cui si deve rimetter, questo approvato da S.A.R. li 19 Giugno 168157[ante 1573]

military purposes) of citadel and barracks. These designs proposed by different engineers were never realized.

Between 1675 and 1682, the expansion and the renovation works of the existing structures inside the Citadel were entrusted to Amedeo di Castellamonte.

The remaining parts of the church were repaired and used as stores and barrack; the perimeter masonry walls in the East aisle were rebuilt and the barracks in the choir area were repaired. In 1677 it was decided to expand the barrack in order to quarter more troops: two wings were erected on both sides of the main nave - the East one was demolished few years later because it had collapsed after a severe snowfall.

“In 1677 it two wings were erected on both sides of the main nave in order to qaurter more troops.”

After the barrack inside the Citadel,

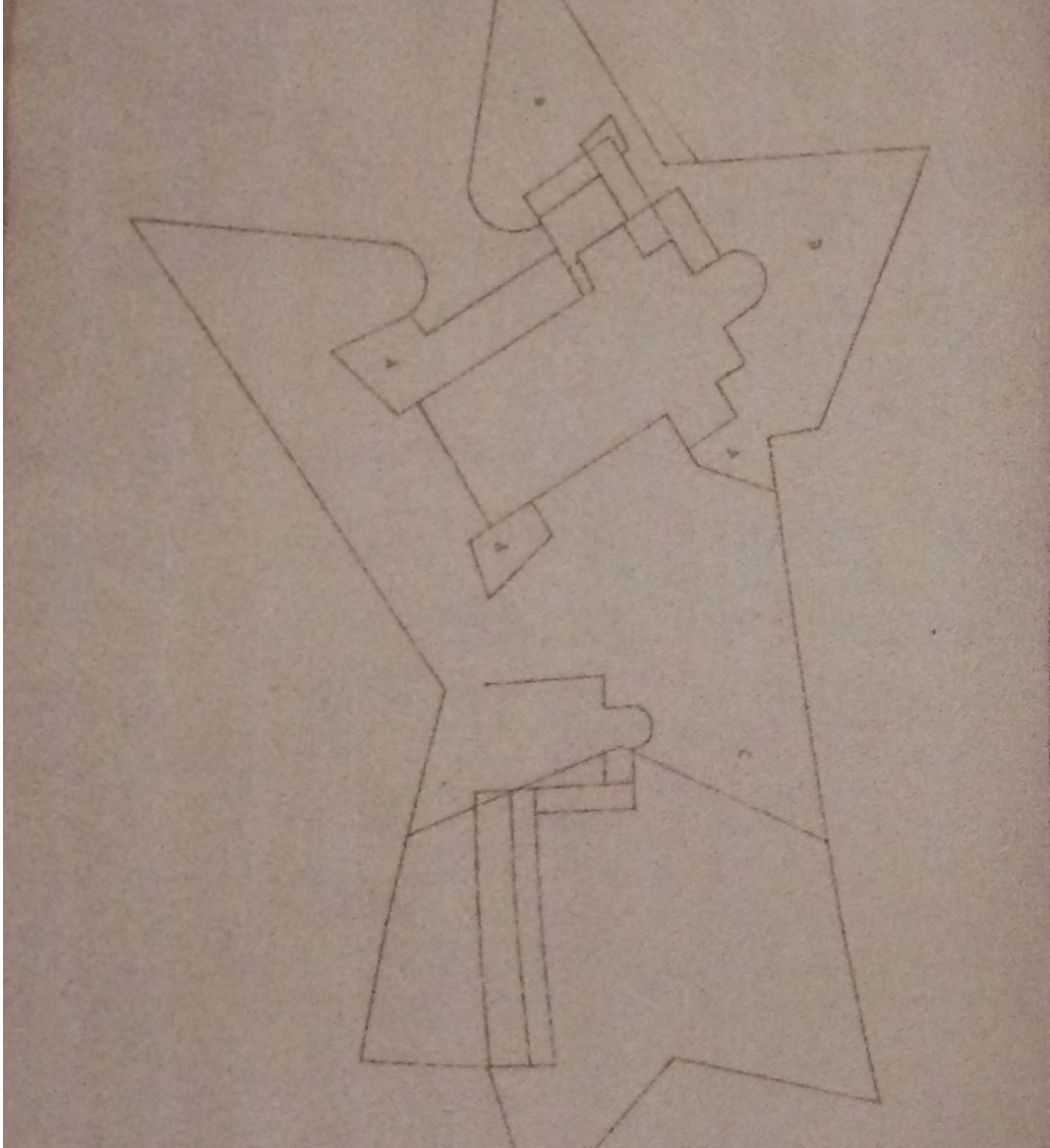


Image: Engineer Ercole Negro di Sanfront supposed to build a new building on the side of the east aisle and a bastion at the west aisle

Source: ASTo, Corte, Biblioteca antica, Manoscritti, Architettura militare, Memoria di quanto necessario per la reparatione della cittadella del Mondovì, [Ercole Negro di Sanfront, 1591] vol. I f. 53v

Citadel of Mondovi Piazza

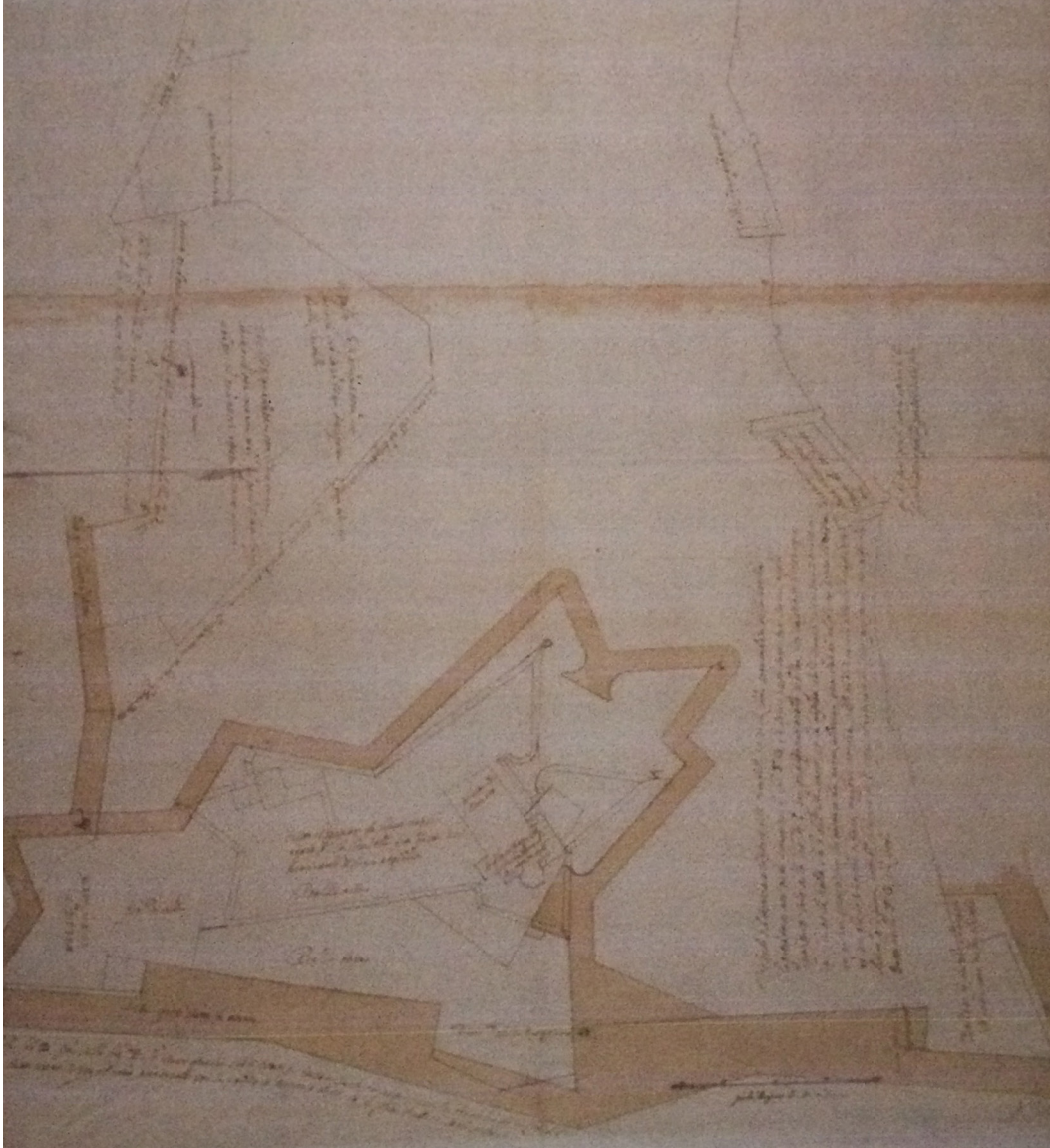


Image Left: Solution by Ascanio Vitozzi (to enlarge the citadel to have a big Piazza d'Armi)
Source: ASTo, Corte, Biblioteca antica, Manoscritti, Architettura militare, Mondovì, [Ascanio Vitozzi, end of XVI - [XVII sec], vol. I f. 58 Morello, [post 1685], ff. 41v-42

the fortification walls were strengthened too.

From 1682 the engineer Michelangelo Garove was asked to strengthen the Mondovi Citadel. The barrack in the West aisle was divided into four equal parts, inserting inner partitions, and raised of two levels; even today it has the same dimensional

features and could accommodate more than a thousand men.

.....
“The barrack in the west aisle was divided into 4 equal parts and internal partitions were made.”
.....

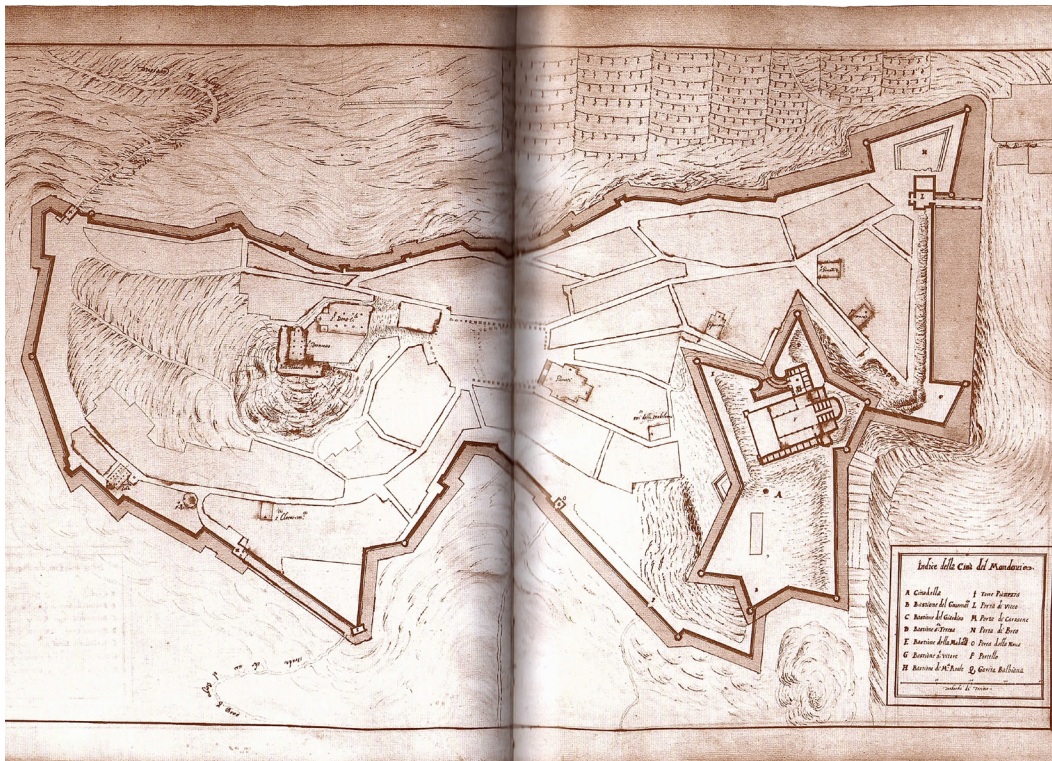


Image: Survey of Michel Angelo Morello in 1685
Source: ISAG,BBICO.951/D.8858,tav. 20, Pianta di Mondovì Piazza con la cittadella, Michel Angelo Morello, [post 1685], ff. 41v-42

The engineer Ghiertand Beretta worked in the adjustments/maintenance of the citadel later. In 1693 - 1694 the works of the citadel were finished. While from 1697 - 1699 maintenance of the citadel and new fortification around the city was carried out. In 1703, Francesco Gallo designed a new barrack for the citadel. But the proposal was not realized.

In the representation below, it is possible to see state of buildings inside the church & yard of the citadel. The S. Domenico Church had been probably destroyed in the previous years.

.....
“In 1693 - 1694 the works of the citadel were finished.

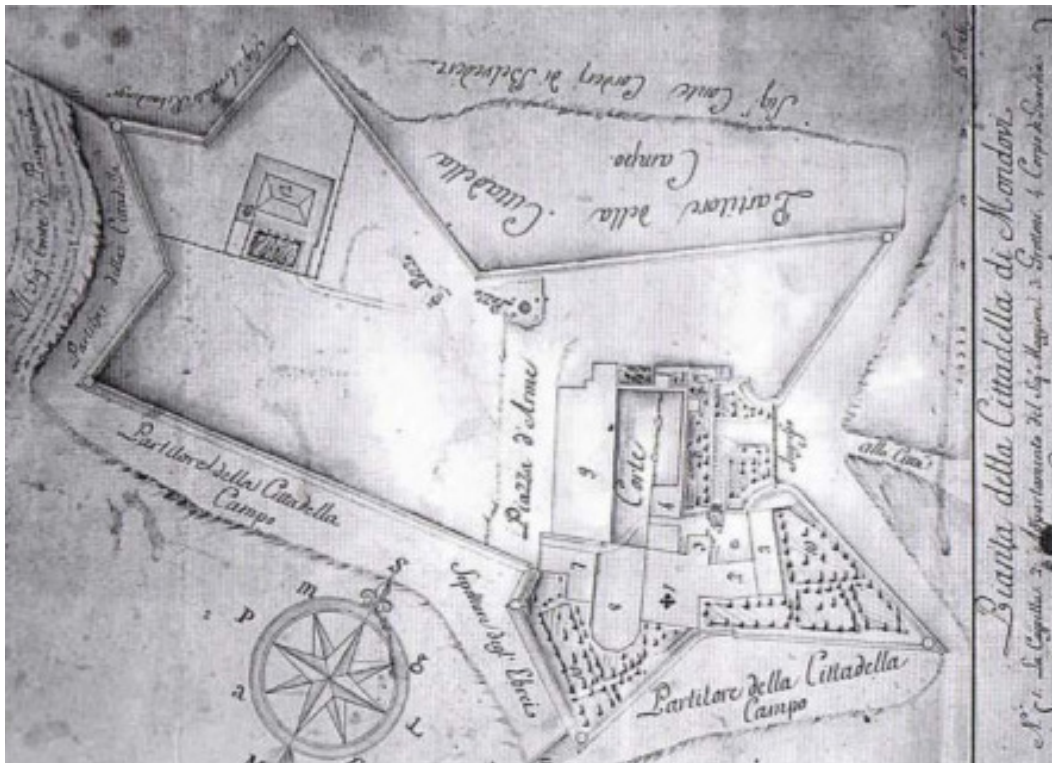


Image: Representation of Citadel
Source: Archivio Privato, Pianta della Cittadella di Mondovì, G.M.S. [post 1751]

While later maintenance of the citadel and new fortification was carried out.”

The 1786 survey by Francesco's Maria Isnardi is a fundamental document because it attests and describes all the Vitelli's, Castellamonte's and Ga-

rove's interventions resulting to be a perfect representation of the state of the barrack at the end of the XVIII century.

The image below shows the condition of the building in 1786 as floor plans are drawn with greater detail. The captain's house is located next to the bell tower. Possibly it (barrack)

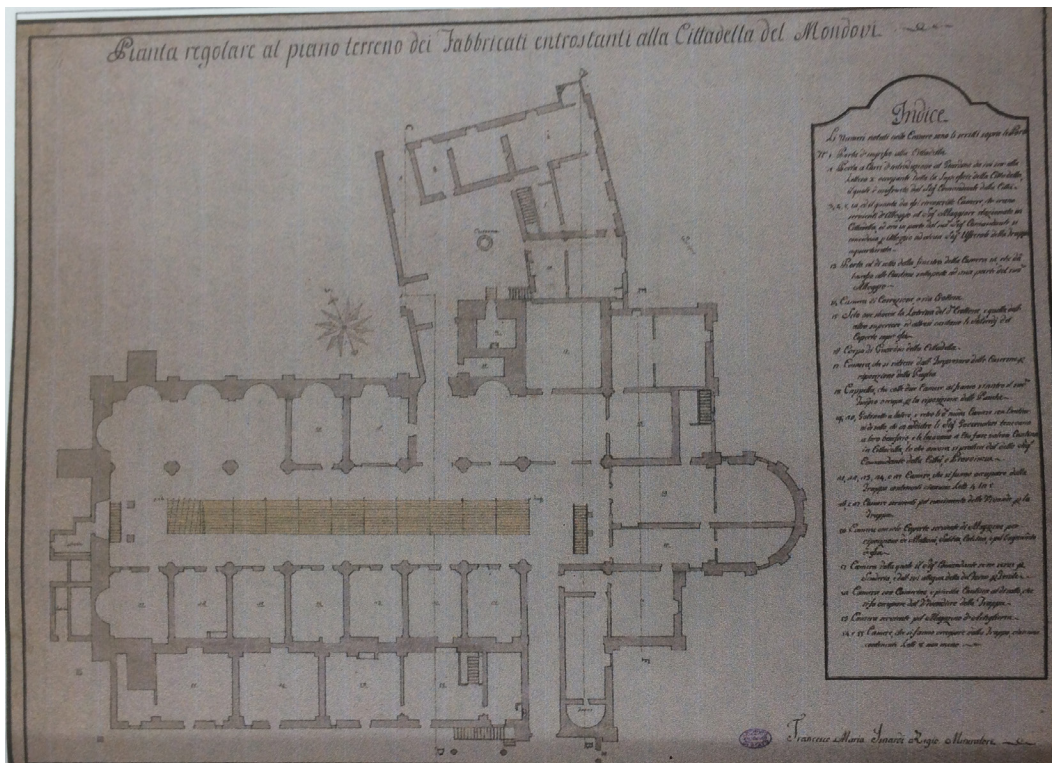


Image: Ground Floor Plan (Cathedral appropriated for Barracks) - Survey by Francesco Maria Isnardi
Source: ASTo, Guerra e Marina, Tipi sezione IV, Francesco Maria Isnardi, [1786], n. 203 e 367/1-2-3

is accessed from the eastern side from the captian's house, as void is visible on eastern side, adjacent to the tower.

While the new billets added on the western side (next to western aisle) are also noticeable. It must be remembered that these billets exist on a lower level as compared to the

ones added inside the western aisle. The floor plan and area is similar even on the third floor of the western wing of the building, covered with the wooden roof and tiles.

The important thing to be noticed is the roof orientation of the eastern wing of the building (section C-D). The orientation of the barrack was

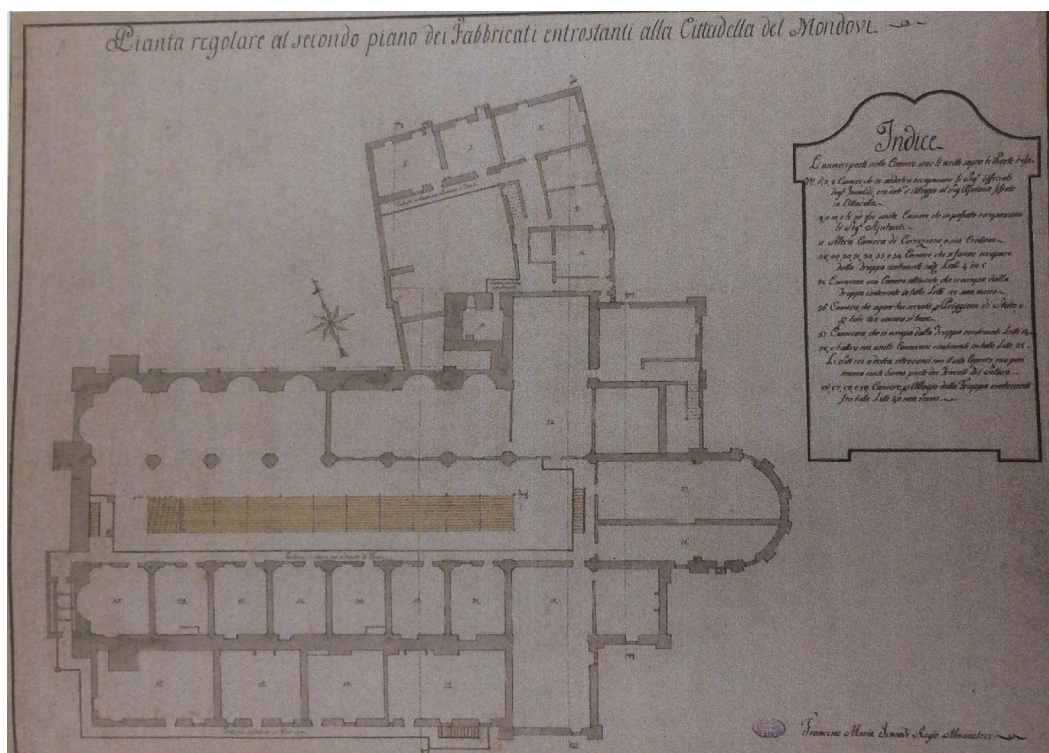


Image: First Level (Cathedral appropriated for Barracks) - Survey by Francesco Maria Isnardi
Source: ASTo, Guerra e Marina, Tipi sezione IV, Francesco Maria Isnardi, [1786], n. 203 e 367/1-2-3

changed later, in the northern side of the same wing. The remnants of this roof are noticeable currently on the site in the attic of the building. The bricks and the stones of the then roof are still located in the same place with empty holes allocated for the rafters (which were removed during roof demolition - refer to the part of the thesis where traces of

cathedral are highlighted in current state of barrack. Especially the attic where demolition of roof earlier roof is evident). The apse of the the San Donato Cathedral is visible in the 18th century painting of Amedeo Cignaroli ('Veduta di Mondovi').

In the 'Catasto Napoleonico' (1796 - 1810) the state of the place is con-

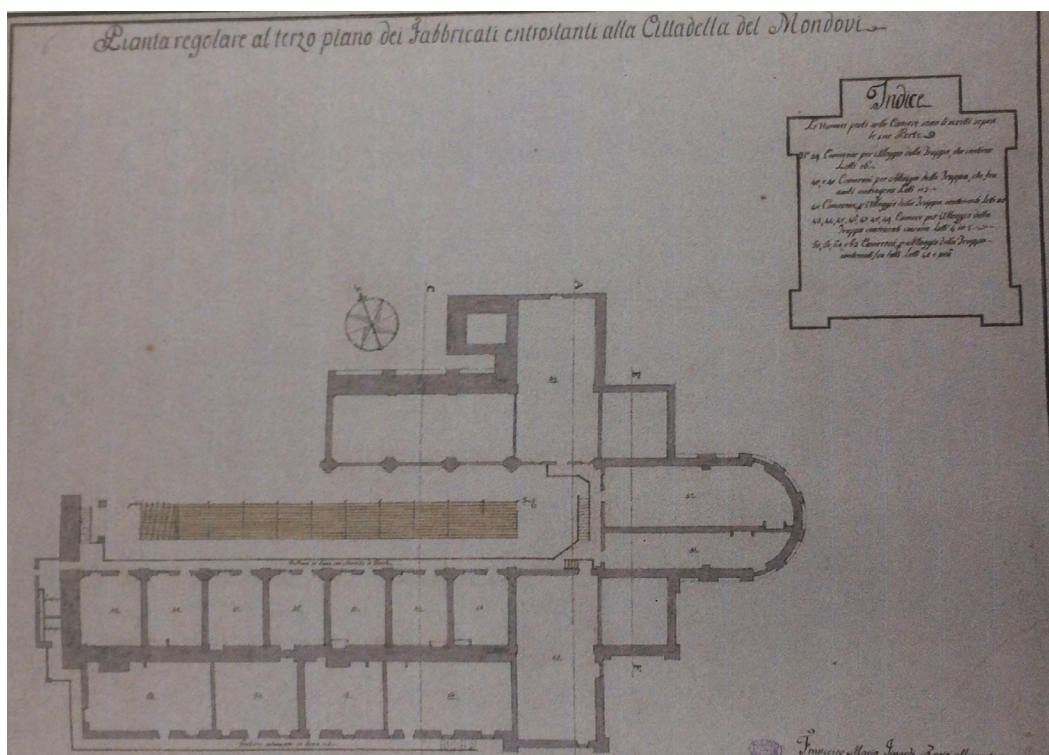


Image: Second Level (Cathedral appropriated for Barracks) - Survey by Francesco Maria Isnardi
Source: ASTo, Guerra e Marina, Tipi sezione IV, Francesco Maria Isnardi, [1786], n. 203 e 367/1-2-3

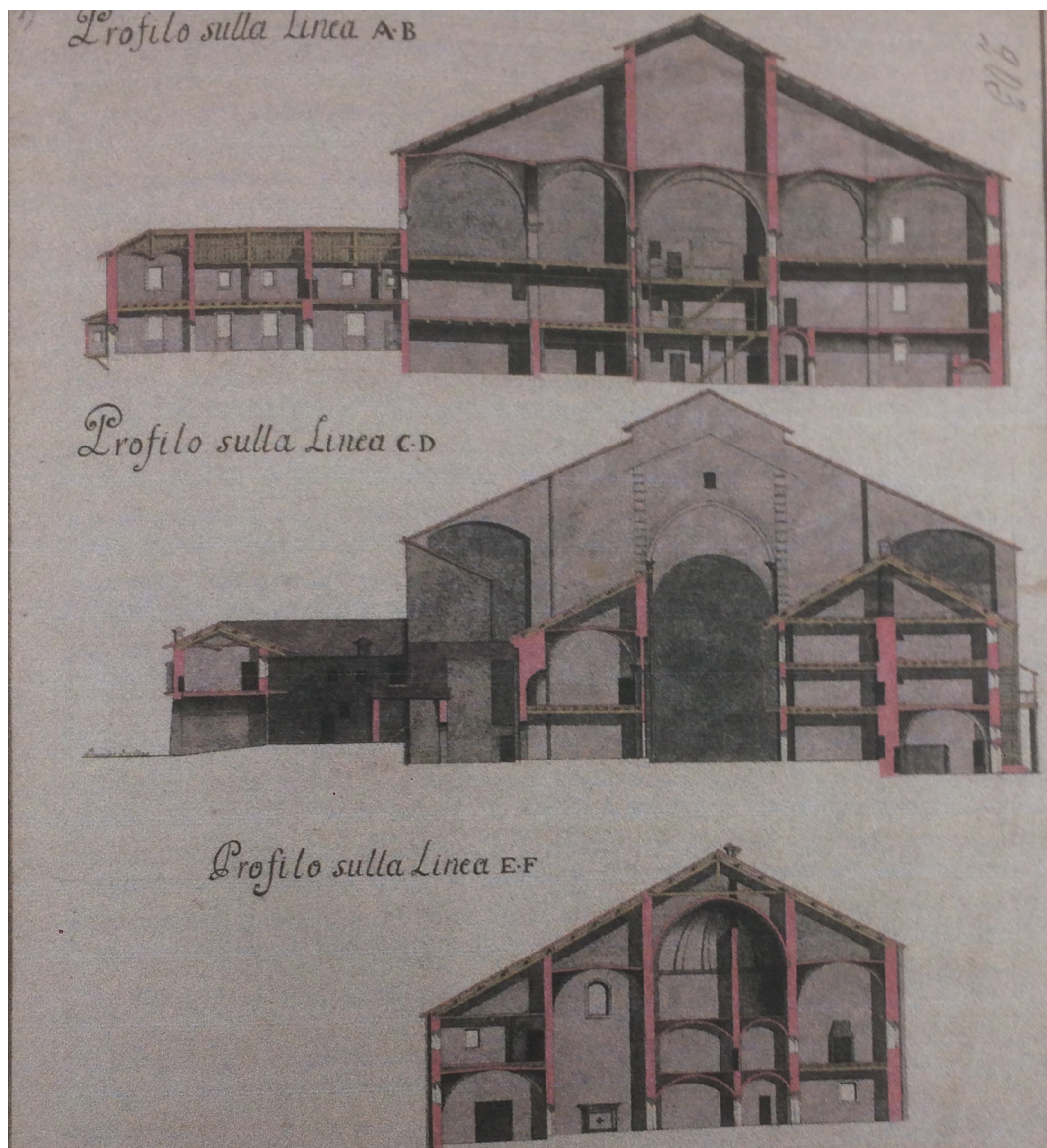


Image: Section AB, CD, EF (Cathedral appropriated for Barracks) - Survey by Francesco Maria Isnardi
Source: ASTo, Guerra e Marina, Tipi sezione IV, Francesco Maria Isnardi, [1786], n. 203 e 367/1-2-3



Image: , Veduta di Mondovì

Source: Fondazione Accorsi, Veduta di Mondovì
Amedeo Cignaroli, [ante 1800]

siderably readable. The apse of the cathedral of S. Donato was still present. While in the 1877 cadastral map, it is possible to see that the apse and the walls of the S. Donato Church were destroyed.

In the late XIX century the Galliano Barrack was built in the East aisle, with a configuration which is practi-

cally identical to the present one.

.....
“...in 1877 cadastral map, the
apse and the walls of the
S. Donato Church are ab-
sent...”
.....



Image: Catasto Napoleonico
Source: Archivio storico Città di Mondovì, Catasto Napoleonico Stefano Vigliada Misuratore, 1796-1810



Image: Land Register

Source: Historical Archive of the City of Mondovì, Cadastre 1877, Map for a copy conforming to the original, corrected and updated as of November 1876 [...] Mondovì 11 July 1879, sheet 5

Citadel of Mondovi Piazza



Image: Catasto 1904

Source: Historical Archive of the City of Mondovi

3.4 TIME LINE OF THE TRANSFORMATION OF THE BARRACKS

Major Phases (Inside Citadel)

The section deals with the geometrical transformation of the S. Donato Cathedral. It depicts the evolution from the very first stage of Medieval church in the 12th century upto the addition of Galliano barrack in late 19th century. The information of the plans has been obtained from the historical drawings and surveys. Since the drawings are traced from the historic documents and in some cases are scale with the help of a common reference, therefore errors are expected in the representation.

.....
“... shows geometrical transformation of the S. Donato Cathedral. It depicts the evolution from the very first

stage (medieval church) in the 12th century upto the addition of Galliano barrack in late 19th century...”
.....

The current/existing walls of the building have been labelled with different colors. Each color represents different phases starting from enlargement of S. Donato in 14th century to the last addition to the building done around 19th century in the form of Galliano barracks. It also shows other phases. The image here shows the final/current state after transformations.

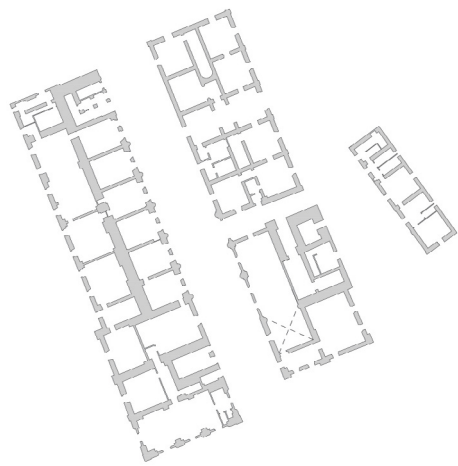


Image: Current State of blocks (E,F,G) in Citadel
Source: Historical Archive of the City of Mondovi

Three Nave Church of 1388 and 'nove et magna' of 1438 - 1470

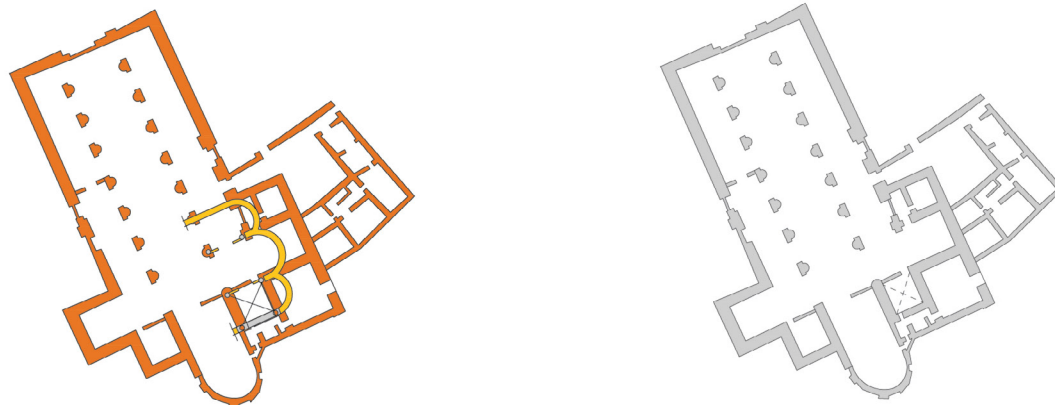
The Medieval church of San Donato built by bishop of Asti dedicated to San Domenico was enlarged by Bishop Damiano Zvaglia (1st appointed bishop in Mondovi from 1388-1403 who was previously bishop in Nice). He built a three nave church in East-West Orientation shown below. Later the 7th bishop Aimerico Seguadi (previously bishop in Belley, France) transformed part of three nave church by building 'nova et magna' during 1438-1470. The place is highlighted with dash lines below. And some of the spaces were again transformed by 10th appointed bishop Gerolamo Calagrano (1490-1497). But he kept the Cappella Maggiore.



Cathedral started to construct in 1497

The bishop Amedeo di Romagnano (11th bishop appointed in 1497 upto 1509) started the construction of the new cathedral re-using part of the ancient church and the Cappella Maggiore (shown below). The cathedral was considered as one of the largest and most majestic in Piedmont. It was later consecrated in 1514 under the 13th appointed bishop - Lorenzo Fieschi (1512-1519).

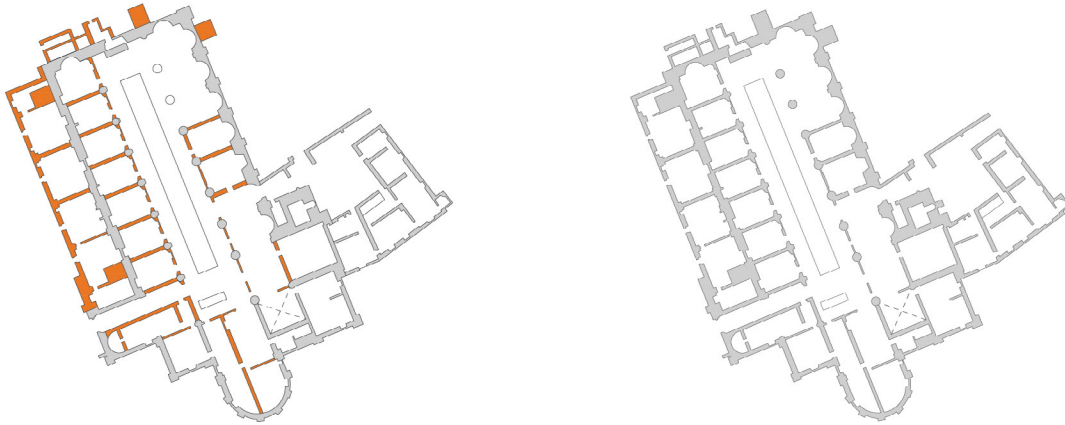
After Demolition/Addition



Internal adjustments done before the 1786 and state of edifice in 1786

From the survey by F. M. Isnardi (done in 1786) it can be seen the changes done before 1786. The changes include; F.Vitteli's filling of soil in nave of cathedral (in 1573) , conversion of cathedral to barrack in transept and choir, removal of nave's roof, lowering perimeter walls, billets inside cathedral. In 1575-1576 with billets inside the apse, a new entrance was created at the eastern side of cathedral. The last part of the cathedral roof was demolished until capital and vaults & new roof was constructed on billets in the aisle. Between 1675-1682 the restoration was carried out and perimeter wall in the east aisle were rebuilt. In 1677, 2 wings were added on both sides of nave but the eastern collapsed due to snow. In 1682, barracks in west aisle were divided to 4 parts and two levels were added by M. Garove. (Events must be seen in conjunction to iconographies & sources mentioned in transformation timeline).

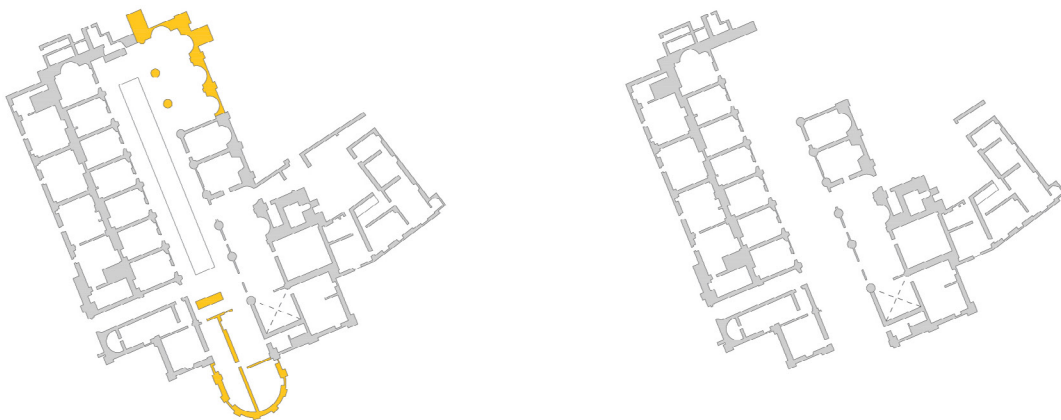
After Demolition/Addition



State of edifices in 1877

In the land register of 1877 it is possible to see that the apse and the walls of the San Donato cathedral are destroyed (as shown below). The image on the right (below) shows the configuration depicted in the land register.

After Demolition/Addition



C. Galliano added by the end of 19th Century & state of edifice in 1904

By the end of 19th century, the Galliano Barracks were added on the eastern side of the cathedral (adjacent to the aisle). By the time a part of the captain's house was demolished and it was no more connected to the main building. While the other part remained there as separated entity. Another addition is prominent on the southern tip of the adjacent building (the second wing). All of these are noticeable in 'Catasto 1904'. By this time, other buildings in the citadel were added too (see iconography added to this section i.e. catasto 1904).



Current state of edifice as a result of changes after 1904

Below is the configuration of the buildings which shows the current state. Now the buildings are totally separated from each other.





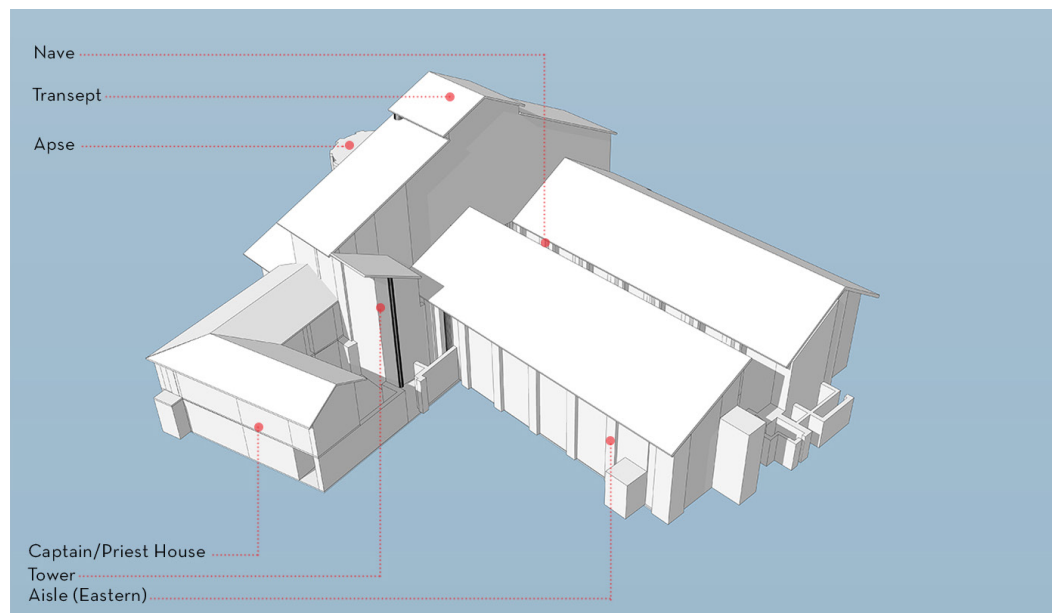
Image: Phases of Additions in the Church of S. Donato
Source: By Author

3.5 RECONSTRUCTION OF 3D MODEL FROM SURVEY DONE IN 1786

Transformations occurred before and after 1786

The 3D images below and on adjacent pages show the 3D reconstruction

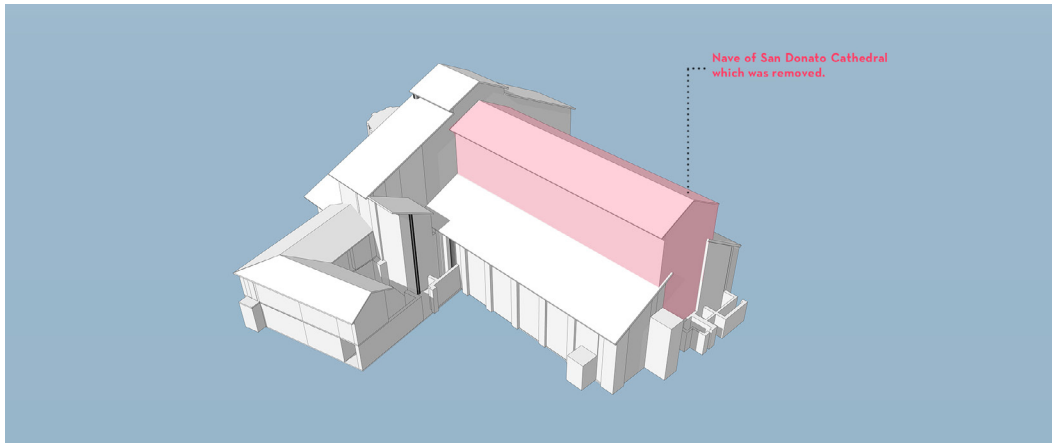
of model from the information of the survey carried by Francesco Maria Isnardi in 1786. The remnants of the cathedral are clearly noticeable in the model. And also the changes that occurred before the survey of 1786. The last image also shows the location of caserma Galliano adjacent to eastern aisle of cathedral. The Galliano barrack is evi-



3D Reconstruction of Survey by Francesco Maria Isnardi (1786)

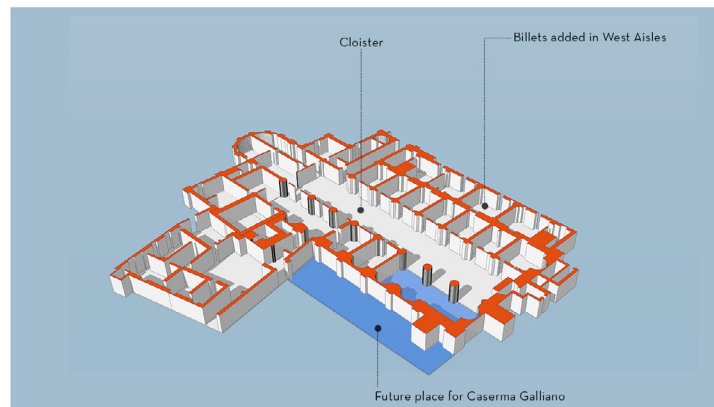
The model shows all of the changes done by the year 1786. The model has been reconstructed with the help of the survey done by Francesco Maria Isnardi in 1786.

Image: Reconstructed 3D Model of Survey of 1786
Source: By Author



Roof of Nave was removed before 1786

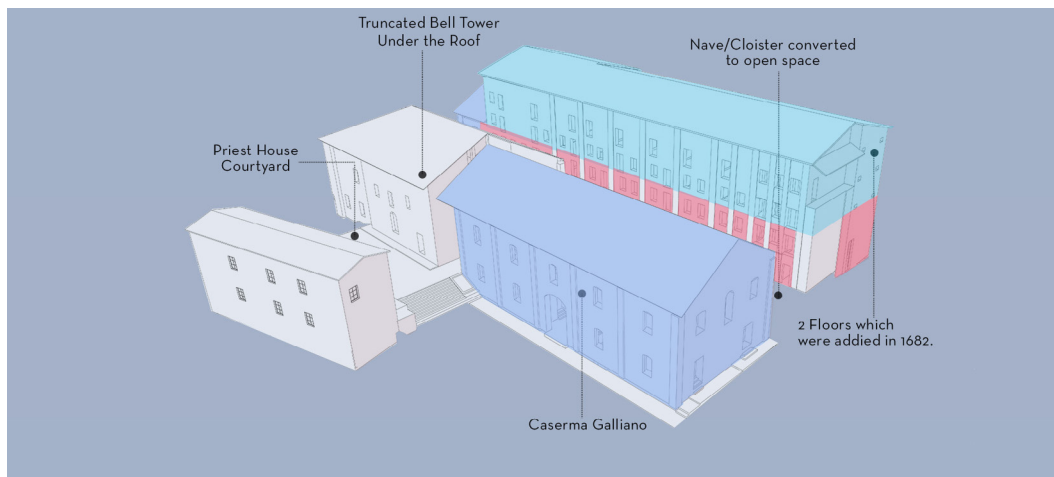
It must be noted that the highlighted roof of nave was removed before 1786. The nave was filled with soil and perimeter walls of original cathedral lowered. A new roof was constructed on aisles. (see transformation of barrack illustrated in 3D using iconographic images on presentation boards).



Events before 1786 Survey

In 1677, two wings were added on both sides of naves but eastern wing fell down due to heavy snowfall. In 1682, Michelangelo Garove divided west aisle into four parts and added two levels. The blue area indicated was to become place for Galliano barracks later.

Image: Reconstructed 3D Model of Survey of 1786
Source: By Author



Current State of the then Cathedral & Barracks

Galliano Barrack (highlighted in blue color) was added on the east aisle of the original cathedral in late 19th century (1870-1880). Infact in 1874 the troops were shifted to the barrack from the Jesuit College (today Pallazzo del Tribunale). The addition of two levels done in 1682 is highlighted in cyan color and are part of current fabric.

dent, shown in the blue color which was added in the place (adjacent to) the east aisle of the cathedral. The transept is completely gone now (refer to plans showing the transformation of the cathedral). The place of the nave (which was converted to a cloister later) is now part of exterior open space, merged with the rest of open space within the citadel. The tip of the bell tower truncated in order to put the new roof in the place (the place/space of bell tower is still

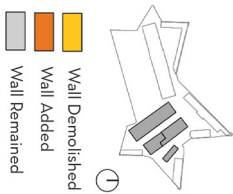
evident on site now). Previous court of Priest's residence is merged with open space (accessed with stairs). The complete chronological timeline (transformation) is shown here. The plans (traced from the iconography) are placed with corresponding 3D model (reconstructed with the help of iconographies mentioned earlier in the chapter. Finally, the pictures (taken at site) are placed with the plan (showing all phases) which are proofs of the transformation.

Image: 3D Model of Current State of Cathedral's Remnants (additions & demolitions made earlier)

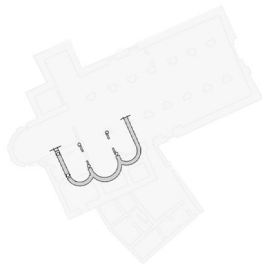
Image (bottom): Plan showing all Phases

Source: By Author

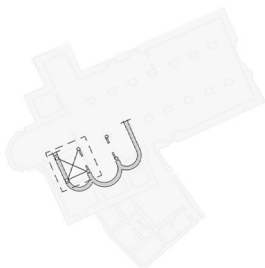
Image: Reconstructed 3D Model with corresponding Plans (refer presentation board for complete time-line with sources)
Source: By Author



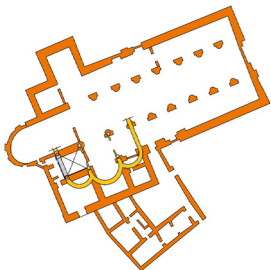
Church of S. Donato enlarged in 1388 into a three nave church



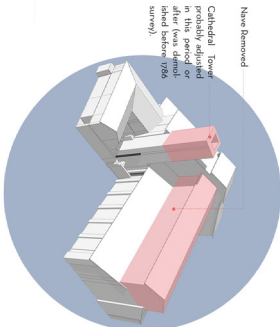
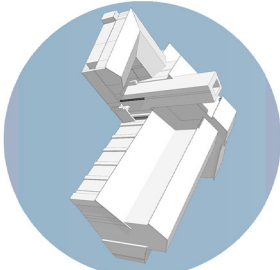
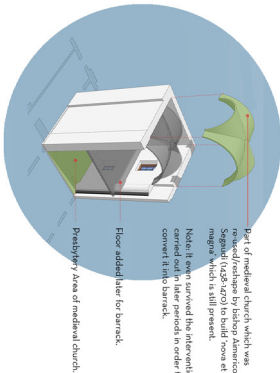
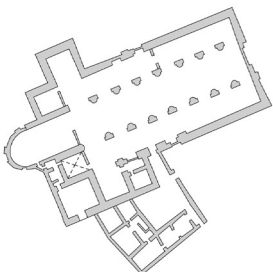
During 1438 - 1470 'nove et magna' was added by bishop A. Segaudt

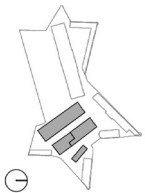


Cathedral started to construct in 1497.

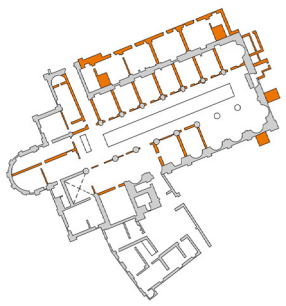


State of the cathedral in 1573 for troops.

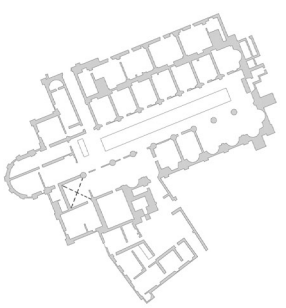




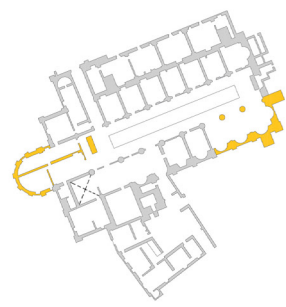
Internal, floors and wall adjustments done before 1786.



State of edifices shown in 1786 survey.



Apse with other walls absent in Catasto 1877.



State of edifices shown in Catasto 1877

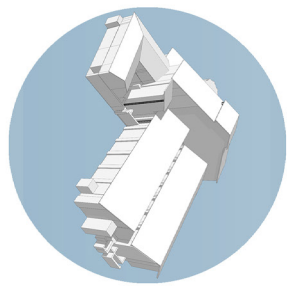
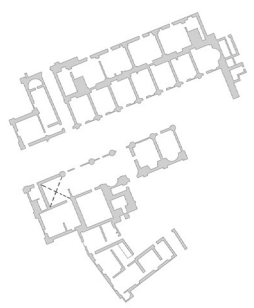
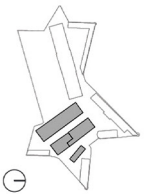


Image: Reconstructed 3D Model with corresponding Plans (refer presentation board for complete time-line with sources)
Source: By Author



- Wall Demolished
- Wall Added
- Wall Remained

Galliano barrack added at the end of 19th Century.



State of edifices shown in Catasto 1904



Current State of the edifices.

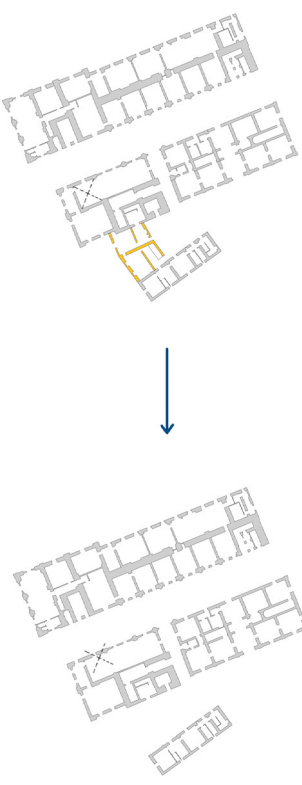
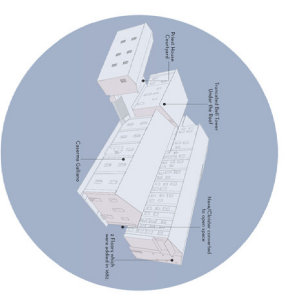


Image: Reconstructed 3D Model with corresponding Plans (refer presentation board for complete time-line with sources)
Source: By Author





A. Cathedral column noticeable on facade of other side. The walls added in order to make biletts belong to period before 1786.



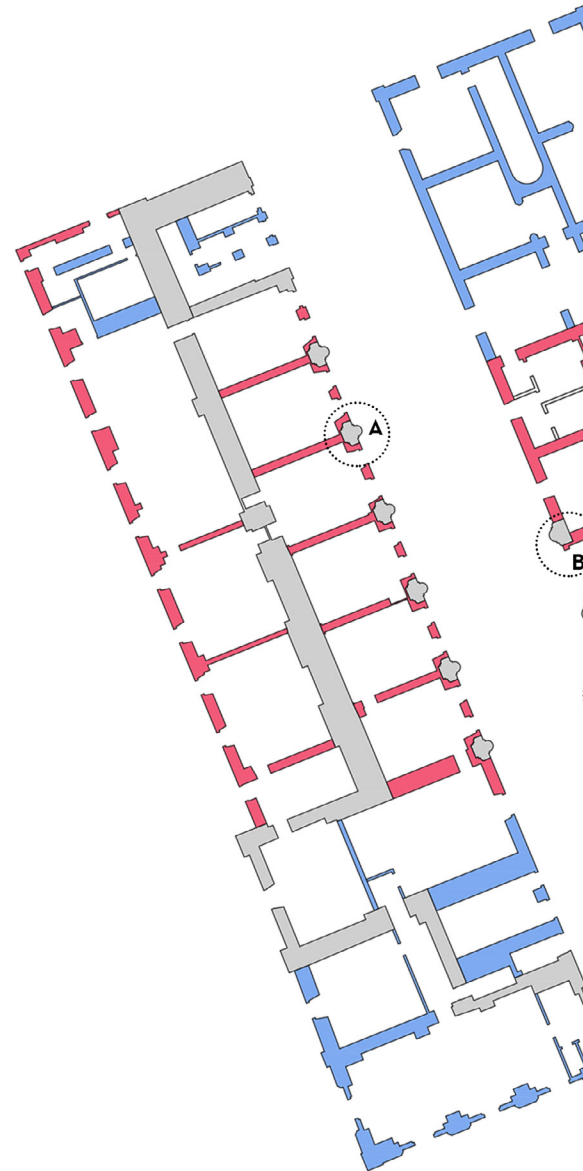
B. The joint between the S.Donato Cathedral column and wall of barrack before 1786, can be seen here. (Exterior View)



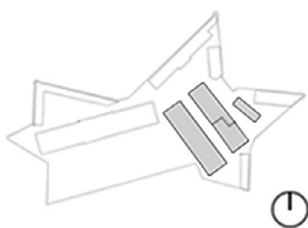
C. The joint between the S.Donato Cathedral column and wall of barrack before 1786, can be seen here. (Exterior View)



D. The current site between the medieval wall of barrack and the wall of Cathedral



ALL PHASES





D. Detail of joint between medieval church column and wall before 1786 & 19th century. (Int./Ext. View)



E. View of the Galliano Barrack where it is evident that the material used is different as compared to other walls (from other phases).



F. Place where the parts of cathedral, barrack before 1786 and the barrack added at the end of 19th century.



G. The column of medieval church and the wall of barrack before 1786, can be seen here. (Interior View)



H. Part of the Medieval Church which was re-used/reshaped by bishop Aimerico Segaudi (1438-1470) to build 'nove et magna' which is still present.

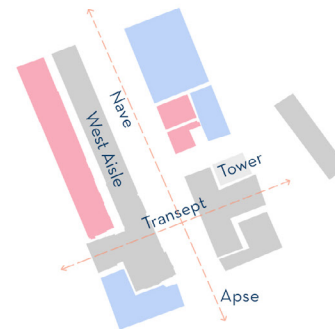
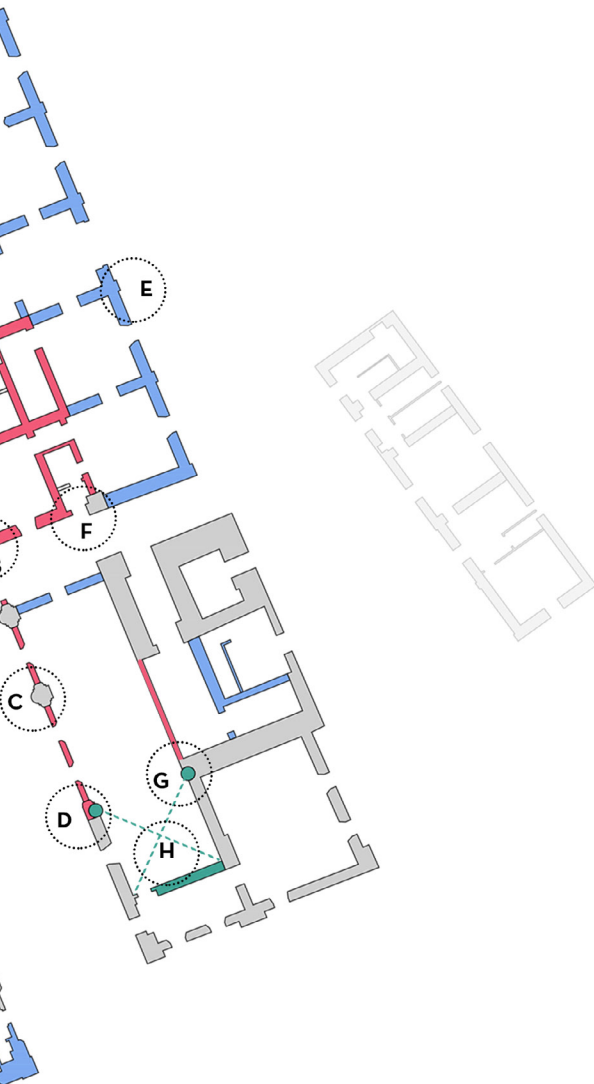


Diagram showing volumes of different phases

Medieval Remnants

Cathedral (1497-1507)

Barrack before 1786

Barrack Added at End of 19th Century

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Chapter 04

Territorial Study

4.1 HISTORICAL BACKGROUND

Mondovi

The known history of the Mondovi goes back and starts from the end of 12th century in 1198. The place was called 'Mons Regalis'. The word has been linked to multiple origins and meanings at different places. One of it is 'Monte Regale'. It highlights the privileges of the city apart from underlining the vocation for independence of the people. These people belonged to the vicinities who gathered on the hill with natural protection due to topography (an appropriate place for refuge).

The people of the place are known as 'Monregalesi' but the toponym then became Mondovi. It is reported that it has been taken from 'Monte di Vico' (Vicoforte; an area nearby and one of the settlement which merged with the others on the hill to form

the first human settlement in current piazza. Multiple factors helped the place to bring to lime light. First and foremost is its strategic location which provided natural protection from intruders. Secondly the resistance to dominant authorities who would often attack, dominate and rule on the subjects. Thirdly, religion became an important factor because it was declared 'diocese'. Others being production, studies, printing etc.

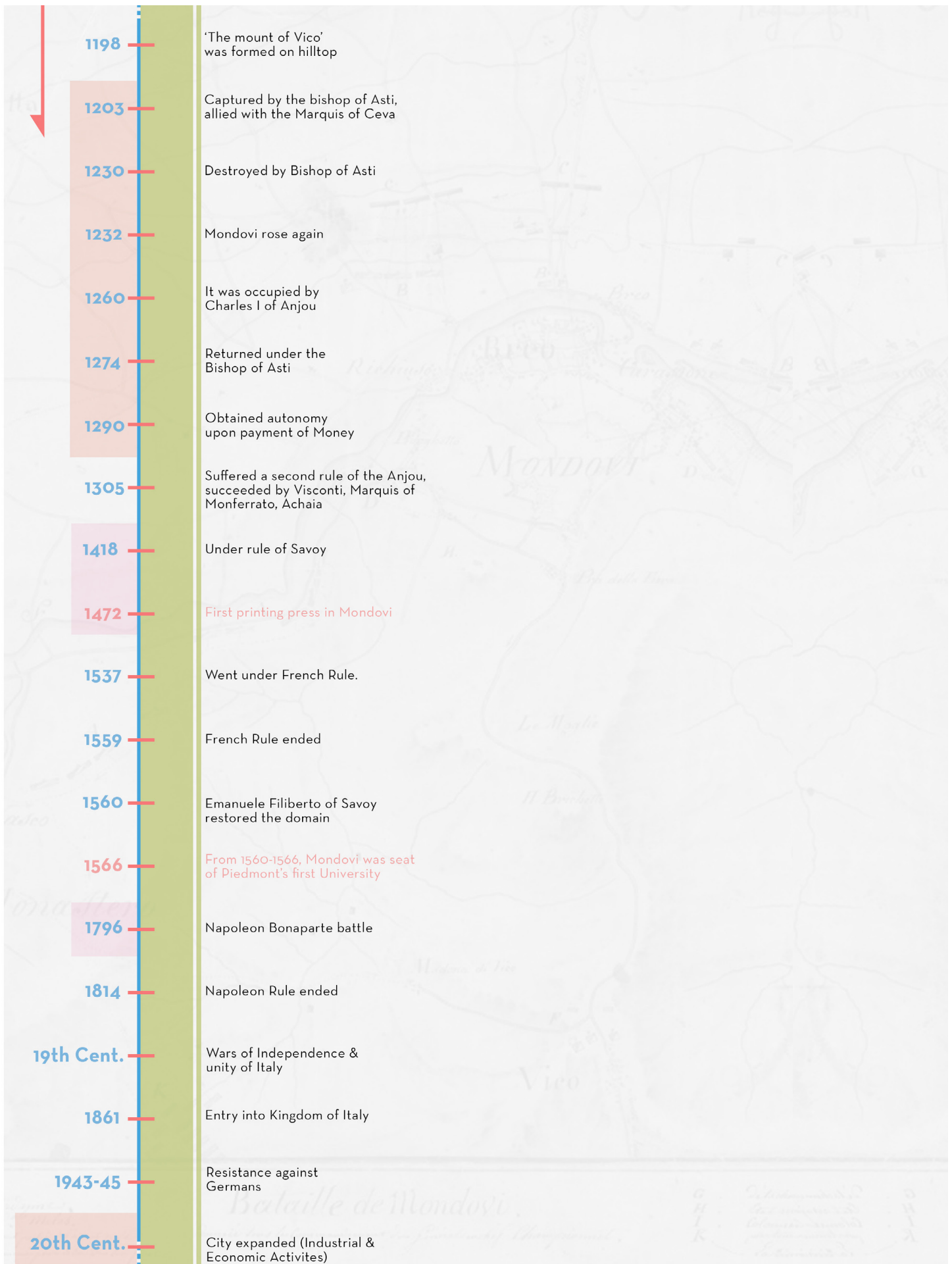
.....

“...originally called Mons Regalis, the name adopted from 'Monte di Vico' (Vicoforte), which was closest center and one of the third parties to settle on hill...”

.....

Origins

“The territory was inhabited by man since the Bronze Age (archaeological excavations of Breolungi).



It was land of Ligurian Bagiennipoi occupied by the Romans in the second century BC they built a large city (Augusta Bagiennorum D), the area of the future Mondovi. With the spread of Christianity in IV - V century, the place ended up under the control of the Bishop of Asti. In the 9th century, a territorial civil government was established in the area between the Alps, the Tanaro and Stura rivers, the Bredulo Committee (Breolungi). But the control was increased in 901 when the Bishop of Asti centralized his spiritual and temporal powers.”

Another etymology of the name of the city of Mondovi has its roots in the Latin “Mons Vicus” meaning “Mountain Village”. ...it was also called “Monte de Vico” and then it was also called “Royal Mount”, or “mountain belonging to the royal domain”. (G.B. Pellegrini, “Italian toponymy”, Milan, Hoepli, 1990: 235)

It is also said that it was named as ‘Èl Mont ëd Vi’, which means “The Mount of Vico” in 1198 when it was

first formed by the settlers.

12th - 14th Century

The city of Mondovi, capital of the area known as “Monregalese”, was established in 1198 by the nearby inhabitants. Survivors of the destroyed village of ‘Bredolo’ and by inhabitants of the neighboring villages of Vico (now Vicoforte), Vasco (now Monastero di Vasco) and Carassone (which was abandoned after the founding of the new city) began to converge on the hill and formed small settlements and religious communities.

Primarily the people of the aforesaid settlements left their original places and then settled on the hill (currently the higher part of Mondovi also called Mondovi Piazza). Due to the settlements on the hill, the new town was called ‘Monte di Vico’ which gradually evolved into ‘Mondovi’.

.....
“... the people of the afore-

Image (left): Chronological Timeline of Important Events of Mondovi, Source: By Author

said settlements left their original places and then settled on the hill (currently the higher part of Mondovi, which is also called as Piazza of Mondovi...”

.....

Piazza, the medieval-walled upper part of the city, is on a hill and dominates the low-lying districts. The hill, due to its topography - steep and thick with bush - offered an ideal protection to form a new community as far away from feudal power and rural villages dominated by lords and soldiers.

In 1200, the Bishop of Asti allied with Marquis of Ceva captured it and later in 1221 destroyed it. Mondovi rose again in 1232 and, forming an alliance with Milan, Savigliano and Cuneo, resisted the new attack by Asti. In 1233, after other violent clashes, the bishop of Asti recognized the independence of the young community.

While in 1260, the area with territorial expansion of Piedmont went under Charles I of Anjou (1226-1285). Later in 1274, the bishops of Asti were able to regain the territory but the place was able to achieve its autonomy in 1290 by paying money. The place got popularity in other regions due to gained autonomy. Therefore it was also called ‘Mons Regalis’ which means ‘Royal Mount’.

In 1305 the city suffered a second rule of the Anjou, who was succeeded by the Visconti, Marquis of Monferrato. The military weakness did not allow maintaining autonomy. Until the end of the 1300s Monte Regale bounced several times between the bishop of Asti, Anjou, Savoy-Acaja, Visconti and Marquis of Monferrato; in 1368 he changed lords three times, ending up even as a dowry to the son of the king of England. The carousel stopped in 1396 when, in exchange for privileges and rights, it became a stable part of the domain of Casa Savoia-Acaja.

The diocese of Mondovi was estab-



Image: Town Planning of the Mondovì
(from the origin to 16th century)
Source: Giampiero VIGLIANO, *L'urbanistica di Mondovì dalle origini al secolo XVI*, Turin 1967

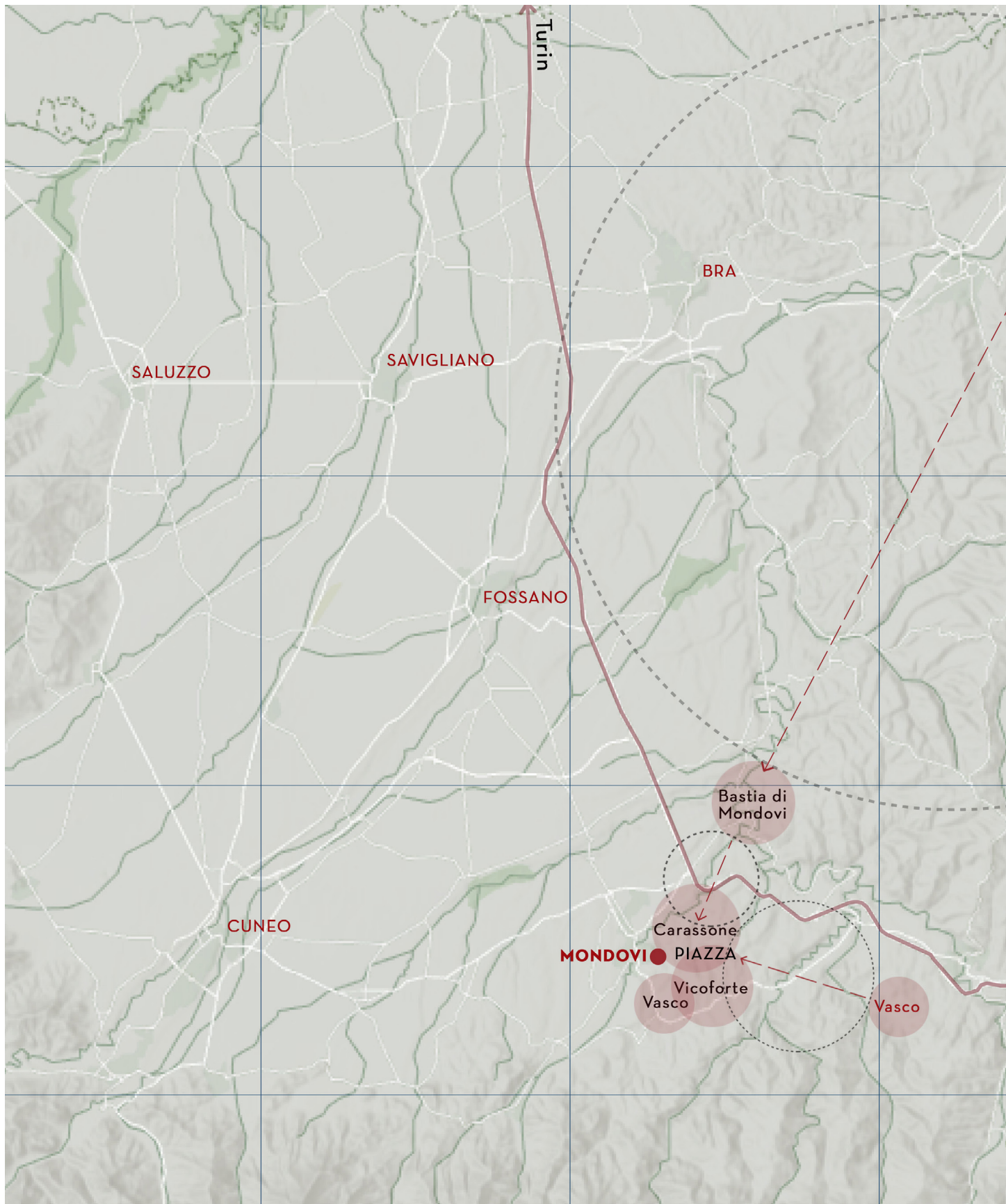
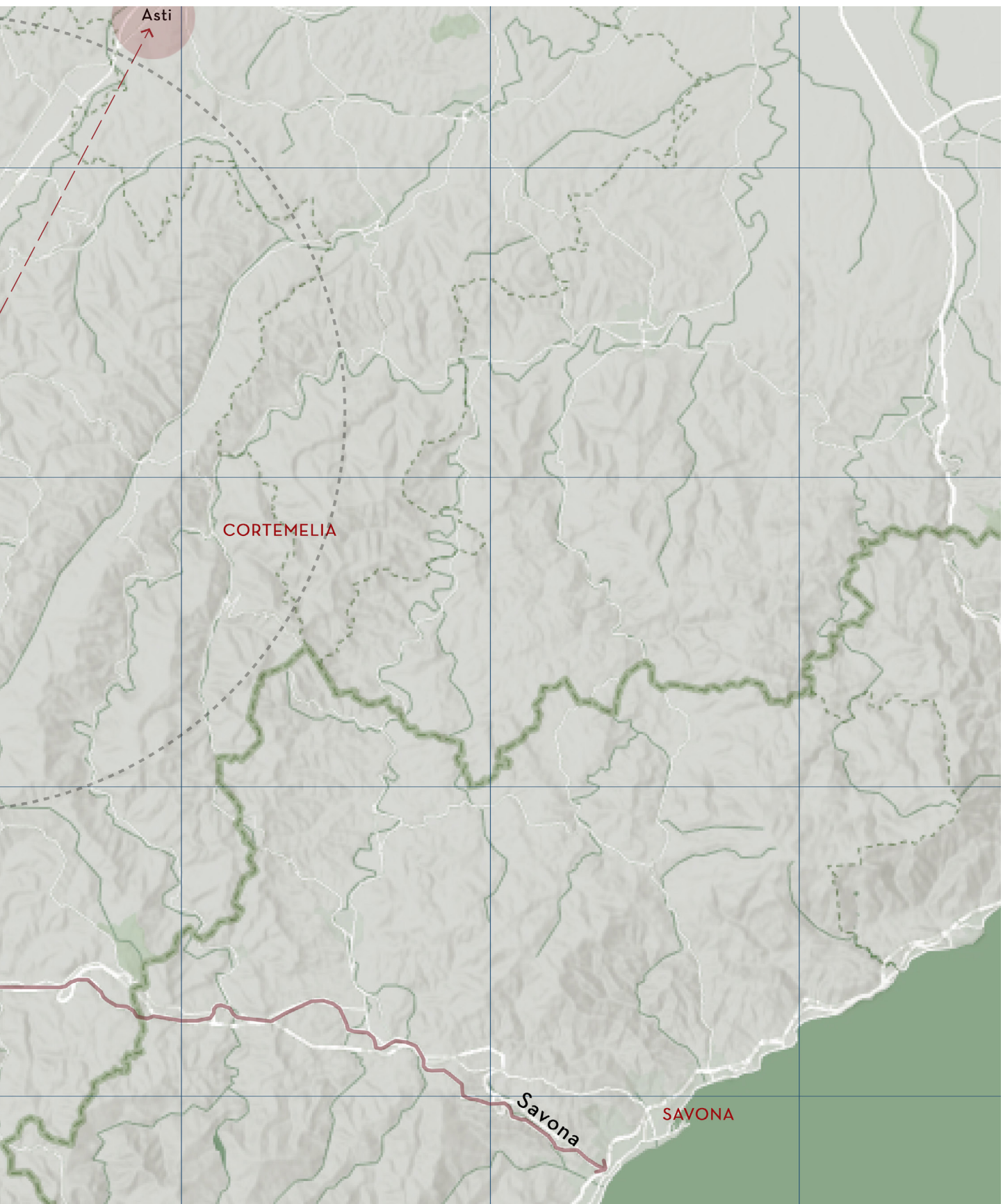
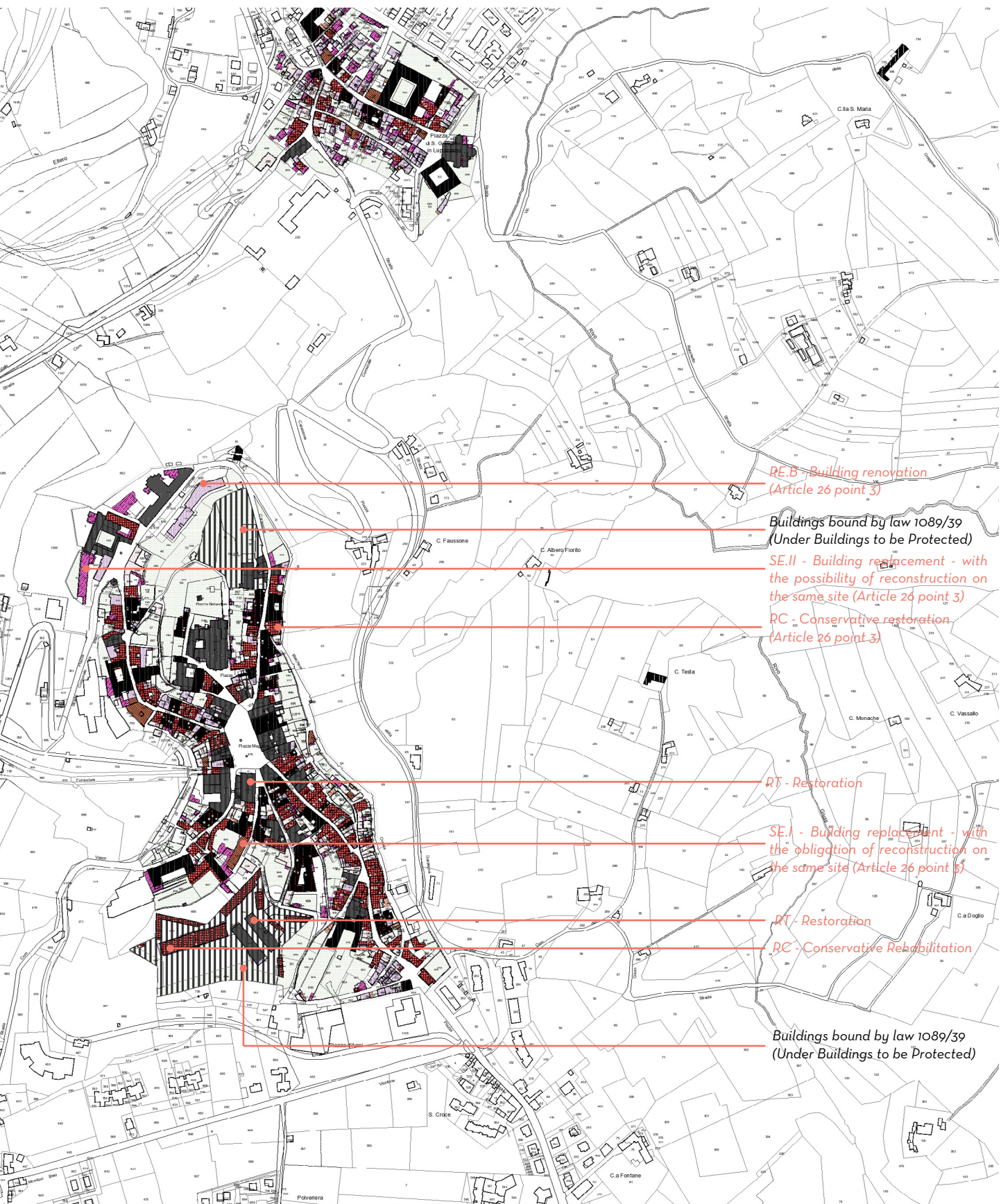


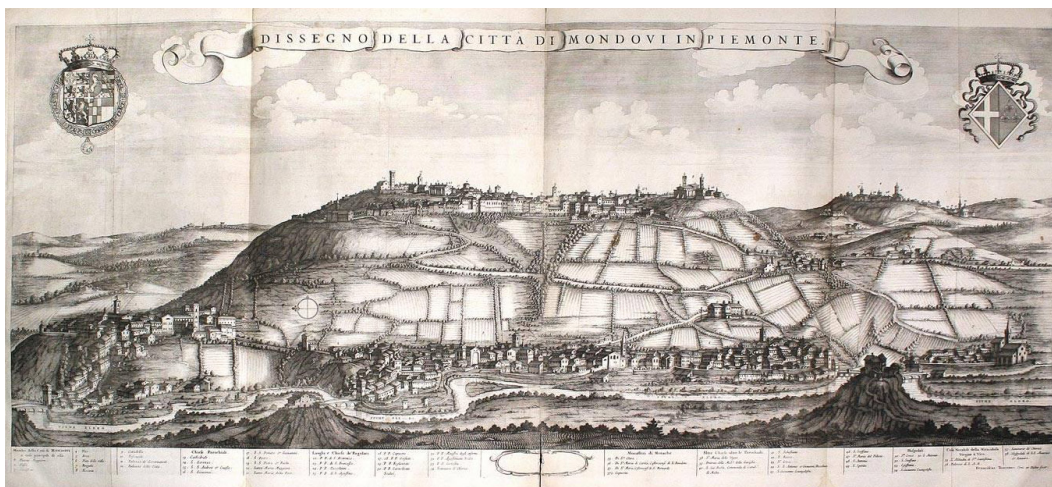
Image: Areas which influenced the origin of Piazza Mondovì
(People migrated from these places to avoid influence/tyranny of Asti's ruler)
Image Source: By Author





lished in the year of 1388, during the Great Schism by Pope Urban VI of the Roman Obedience. On 26 June 1388, Mondovi was established as a

in Mondovi in 1472, the art of printing started in the place and not to mention of late gothic frescoes.



‘civitas’. The city of Mondovi provided the bishop with an Episcopal palace, next to the church of S. Antonio.

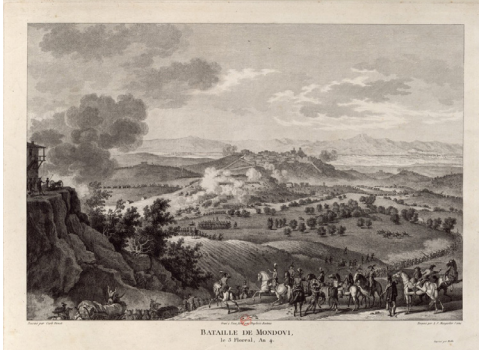
In Breo the road axis Beccaria-Sant’Agostino-Piandellavalle was completed and the villages of Rinchiuso, Borgato and Ripe developed.

15th - 17th Century

Mondovi went through a progressive development during this period especially 15th and 16th century. The territory was dominated by the Savoy in 1418. The first book was published

From 1537 until 1559 the territory went under the French rule. In 1560 it was restored from the French rule by the kingdom of Savoy under Emanuele Filiberto. In 1560 the prestige of the city was such that it is recognized as the seat of the Gener-

Image: Disegno della città di Mondovì
Source: Theatrum Sabaudiae, 1662, vol. II, 38



al Study of the Savoy Kingdom. From 1560 to 1566, Mondovi was seat of Piedmont's first university.

.....
“ Mondovi saw exceptional development and it became one of the prominent places in Piedmont. The territory went under the French rule which then was restored by Emanuele Filiberto.”
.....

In 1573, the citadel on the southern tip of the Mondovi piazza was built

Image: Bataille de Mondovi (1796)
Source: gallica.bnf.fr

by order of Emanuele Filiberto. The Dominicans, who had a church and convent near the cathedral of S. Donato, had everything destroyed and the duke installed them in Carasone, in the church of S. Giovanni.

The Savoy in 1680 imposed a tax on salt. Doeple reacted to the violation of pacts which led to unstability in the region thus stagnating the development and progress. It took some time to end the Salt War. With an edict with its end in 1698, which dissolved the Genral Council of Monregalese and the territory was fragmented.

18th Century

It is mentioned that the number of people in Mondovi reduced to ten thousand from thirteen thousand due to wars, plagues and famines. Despite such events the place was able to maintain its political and administrative centrality. It kept producing stupendous individuals and talented leadership. In fact, various

leaders of the Kingdom of Sardinia and illustrious personalities are monregalese (the Marquis of Ormea, the count of Cravanzana, the Marquis Fauzone, the Counts Corte, the abbot Giovan Battista, Count Dalmazzo Vasco, physicist Giovan Battista Beccaria, the historian Grassi di Santa Cristina, the poet Francesco Regis).

In this century, furnaces, spinning mills, silk factories, tanneries, manufacture of fabrics and cotton begin to develop along the stream.

.....
“... architect Francesco Gallo gave new appearance to the city - a Baroque Center. Later in 1814 it was restored again from French rule.”
.....

The renewed vitality corresponds to a demographic recovery and a new appearance of the city: the Monregalese architect Francesco Gallo transforms Mondovi into a Baroque



center. In the Napoleonic era Mondovi remains heavily involved in Bonaparte's First Campaign in Italy. In particular the battle of 1796 is remembered. French rule, as for the whole of Piedmont, ended with the Restoration in 1814.

19th - 20th Century

The territories of Piedmont which was under the French rule, finally liberated in 1814. After that, during the course of nineteenth century it was involved in politics and wars of independence and unity of Italy.

The Monregalese returned to the protagonists in the revolutionary

Image: Bataille de Mondovi (1796)
Source: gallica.bnf.fr

movements of 1821 and 1833, and in the events of the Risorgimento with the Mazzinian patriot Giuseppe Biglia di Montaldo, with Giacomo and Giovanni Durando, Massimo di Montezemolo.

On the other side of politics, during the same period pasta factories, paper mills, furnaces, match factories, tower clocks, metal work, ceramics became the common and prevalent activities in the area.

In 1861 it made entry into the Kingdom of Italy. Also. in 1886 Breo and Piazza were connected with the fu-



Image: Funicolare di Mondovì
Source: Funimag (Twitter)

nicular (Refer to image: Funicolare di Mondovì). 19th century proved to be more prosperous and populous for the place. During the same century the railway station was created. The residential area of Altipiano emerged in this period. Apart from this, the tunnel of the hill, the construction of Turin-Savona railway in 1933 and work of the viaduct took place.

.....
“...mostly involved in wars of independence and unity of Italy...later in 1861 it made entry into the Kingdom of Italy. In 20th century it expanded industrial activities.”
.....

During the Second World War the city was occupied by the Nazis in 1943 and is decorated for Military Valor for its role in the Liberation War. Also, during the course of 20th century, the city expanded its industrial and economic activities.

Today

With its rich history spreaded through the centuries, today the place has painted its own image for the people especially the tourists. Mondovi's new funicular which was installed in 2006 has become its modern identity.

The restoration of the frescoes by Andrea Pozzo with a large construction site-event twinned with those of Trento and Rome, added to the new integrated system of the city's cultural heritage "Mondovi City of Art and Culture". This gives the figure of attention to the artistic heritage developed in the past decades.

In addition to this, the collaboration with Slow Food is indicative of how traditions are protected. While at same time, the recently included festival of hot air balloons has become also center of attraction for the people and outsiders. Furthermore, the taste for the music with other art

forms for the inhabitants is insatiable. The developing music scene depicts a lively and growing cultural climate.

Recognized events such as the Regional Fair of Truffle-Sins of gluttony, Carnival, the Spring Fair, are just some of the showcase moments of the city and the territory, while the natural commercial lounge consisting of the historic centers of Breo and Piazza and the commercial park Mondovicino at the gates of the city make Mondovi also a shopping destination for the general public of the area and vicinities.

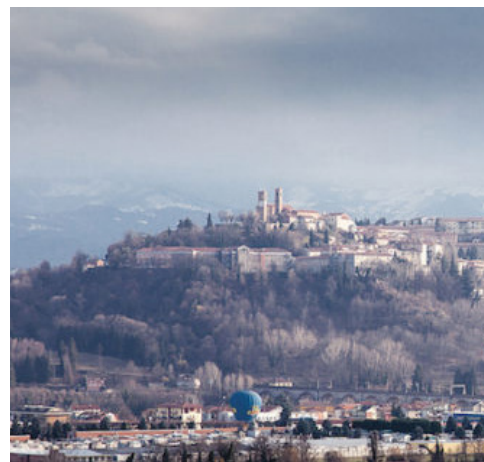


Image: An Aerial View of Mondovi Piazza
Source: <https://www.lafedelta.it/2020/01/03/le-mon-golfiere-colorano-il-cielo-di-mondovi/>



Map of Mondovì

4.2 GEOGRAPHICAL & TERRITORIAL FRAMEWORK OF COMUNE MONDOVI

A. Description

Mondovì is a town and Comune (township) in Piedmont, northern Italy, about 80 kilometers (50 mi) from Turin. It is located between mountains, hills and plains: this is to the north, towards Turin , about 90 km away; the part placed on a hill faces east towards the Langhe ; to the south and west it looks towards the Alps .

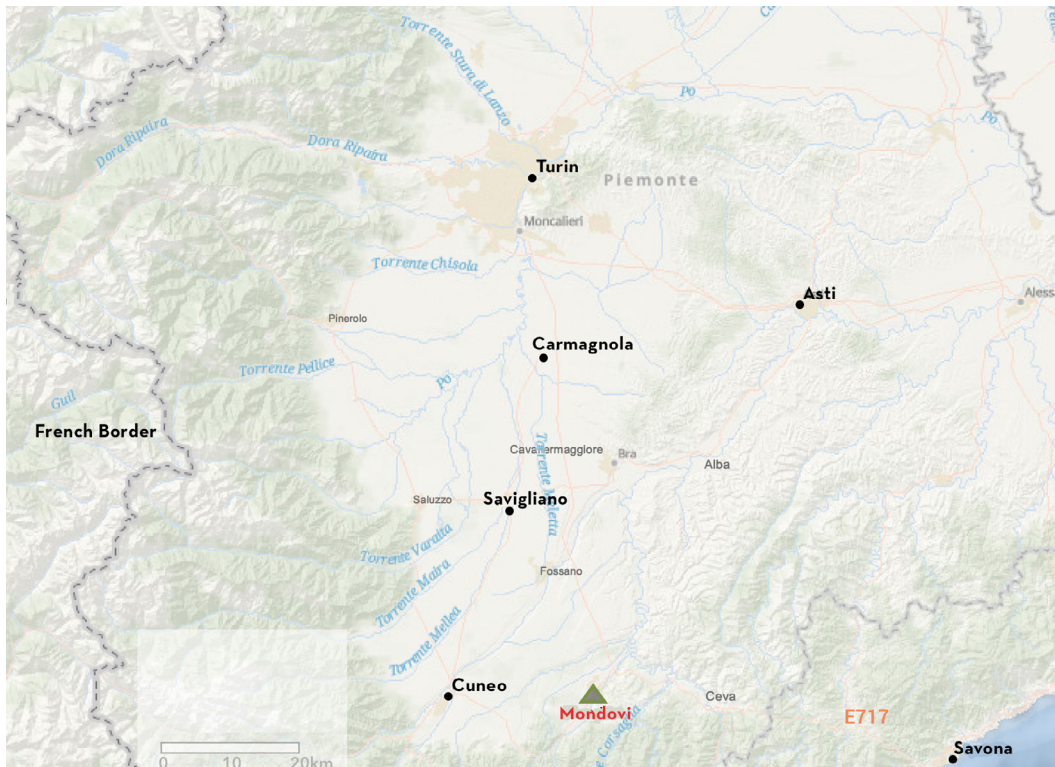


Image: Location of Mondovì

Source: arcgis.com

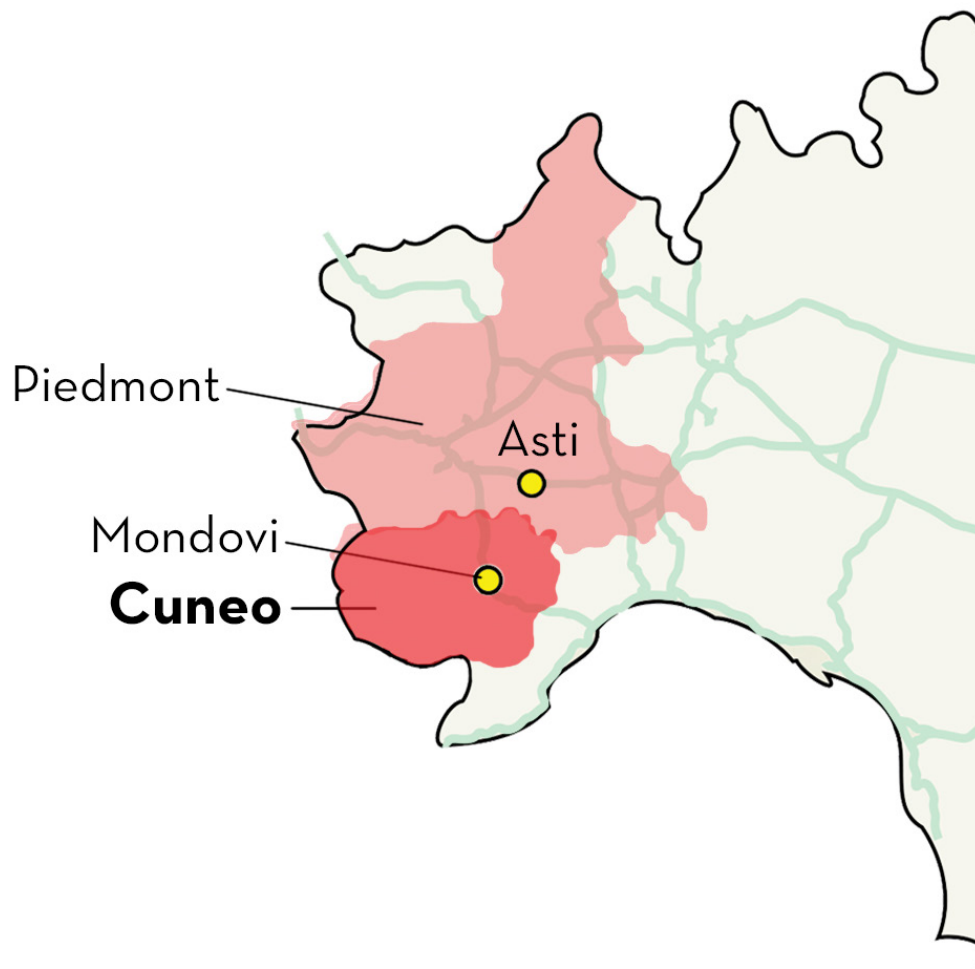
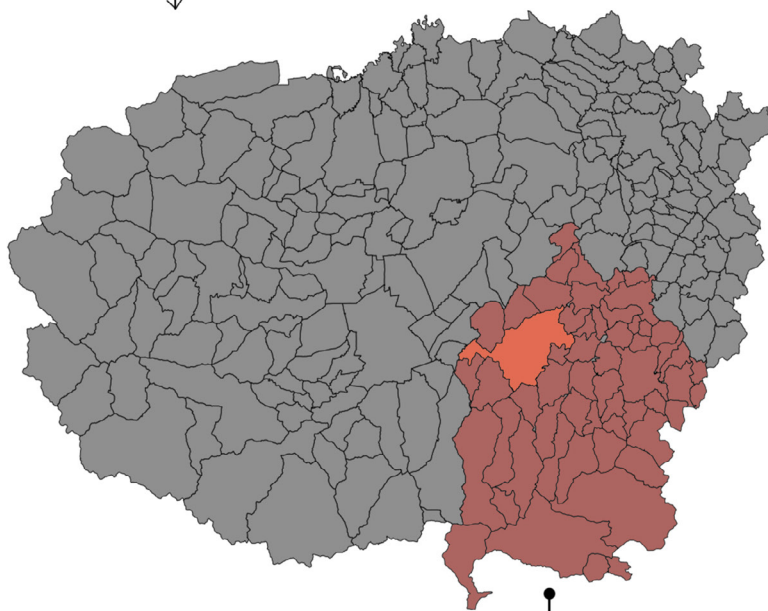


Image: Cuneo Province & Mondovi on Italian Map
Source: By Author

Province of Cuneo



Mon



regalese



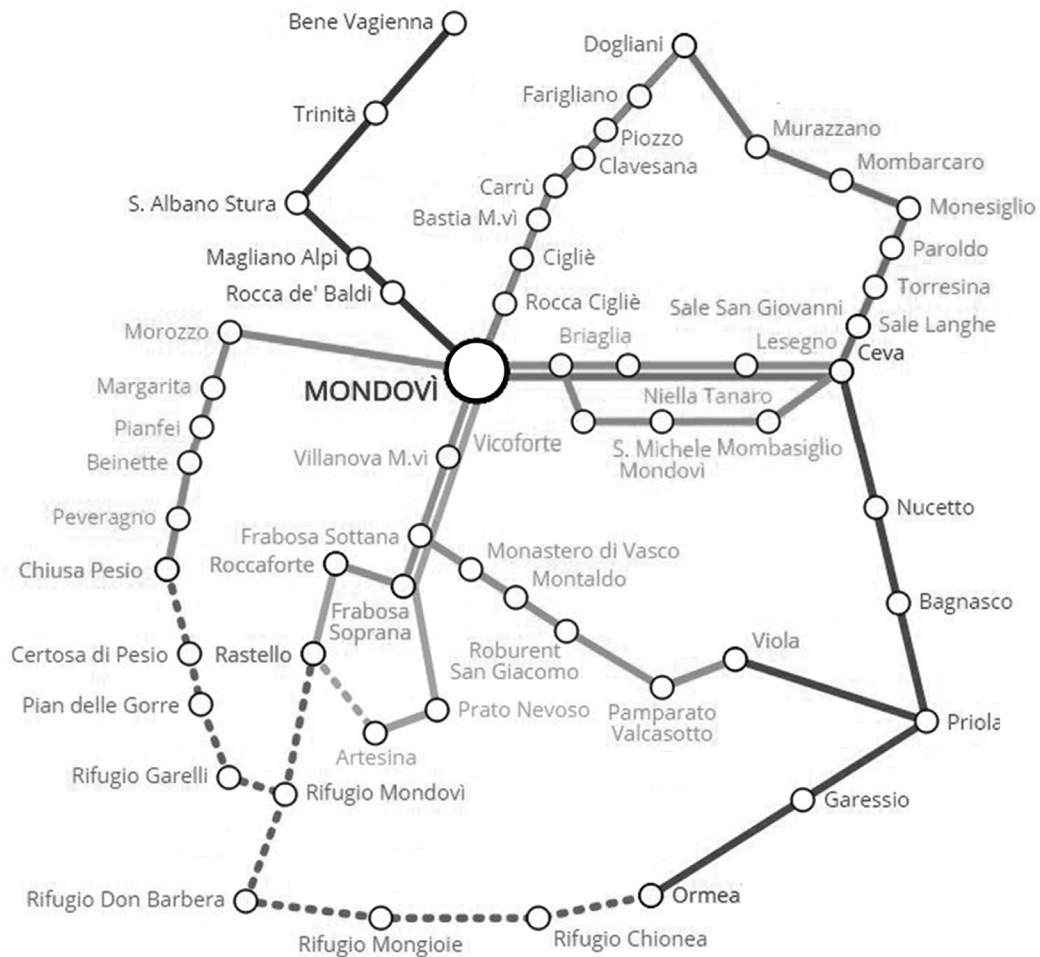


Image: Territorial Routes of Monregalese Region
 Original Source: <https://turismo.unionemonregalese.it/>
 (Image edited by Author)

Mondovì is 63 km from Savona and the Ligurian Riviera : the Ligurian Alps separate it where there are some tourist resorts (Lurisia , Frabosa , Artesina , Prato Nevoso, San Giacomo di Roburent).

B. Territorial Context & Linkages

The territory of the Mondovi links to other remaining Monregalese region comprehensively. The diverse landscape of the Monregalese offer variety of geographical territory with in itself and in the areas around its borders. It connects to Langhe in its north-eastern area, Cuneo e Vali in western, and Saluzzese region on north-east. These connecting regions offer their unique taste, food, art, architecture, crafts and culture. The positive things about these regions is they are connected to each other thus allowing a fertile ground for tourism, economy and development. These are shown in the image (titled Cuneo Province and Monregalese Region on Italian Map).

The Monregalese region within itself includes places like Caru, Murazzano, Vicoforte (immediate neighbor of Mondovi), Ceva, Roccaforte, Roburent and the list goes on. The Fiume Tanaro passes through the region from top to bottom.

C. Territorial Culture

The whole region of Monregalese offer various traditions yet a collective culture. E.g. the Mondovi in itself is quite famous for its local crafts. 'Among the most popular products and features are fine handed painted ceramics, the usual subject of which is the classic rooster, the symbol of the craft production of Mondovi'. 'Raschera' among the cheeses (a product of Alps of Mondovi) and 'risole' (puff pastry with apricot jam) are famous traditional cuisines. Among wines, the 'Dolcetto', the typical of red wine which belong to langhe (next to Monregalese). Similarly, architecture of the region is also unique. The sanctuary of Vicoforte is located in the region. It is an



Image: Arts, Crafts, Architecture, Gastronomy & Nature of Monregalese
Source: By Author



architectural marvel - world's largest elliptical dome. The region's natural assets are transformed into tourists assets like ski destinations, hiking trails, and refuges. (Refer to photo-mapping of Monregalese Region)

D. Accessibility to Site (Railways, Highways, Tram ways)

Mondovi is connected to the city of Turin via railway track (Turin-Savona Line). The line originally connects Savona (which exists on the sea coast) to city of Turin. But since the Mondovi is in between these two disti-

nations, therefore the same track is used by the people of Mondovi. And in fact there exists a railway station. The 'Regionale Veloce TrenItalia-RV' uses the same railway station to drop the people of Mondovi. With its specific schedule during a day it provides easy mobility to inhabitants.

.....
"Mondovi is connected to the city of Turin via Turin-Savona railway line."
.....

The city was once at the center of an important railway-tram hub, including the Mondovì-Bastia railway (with

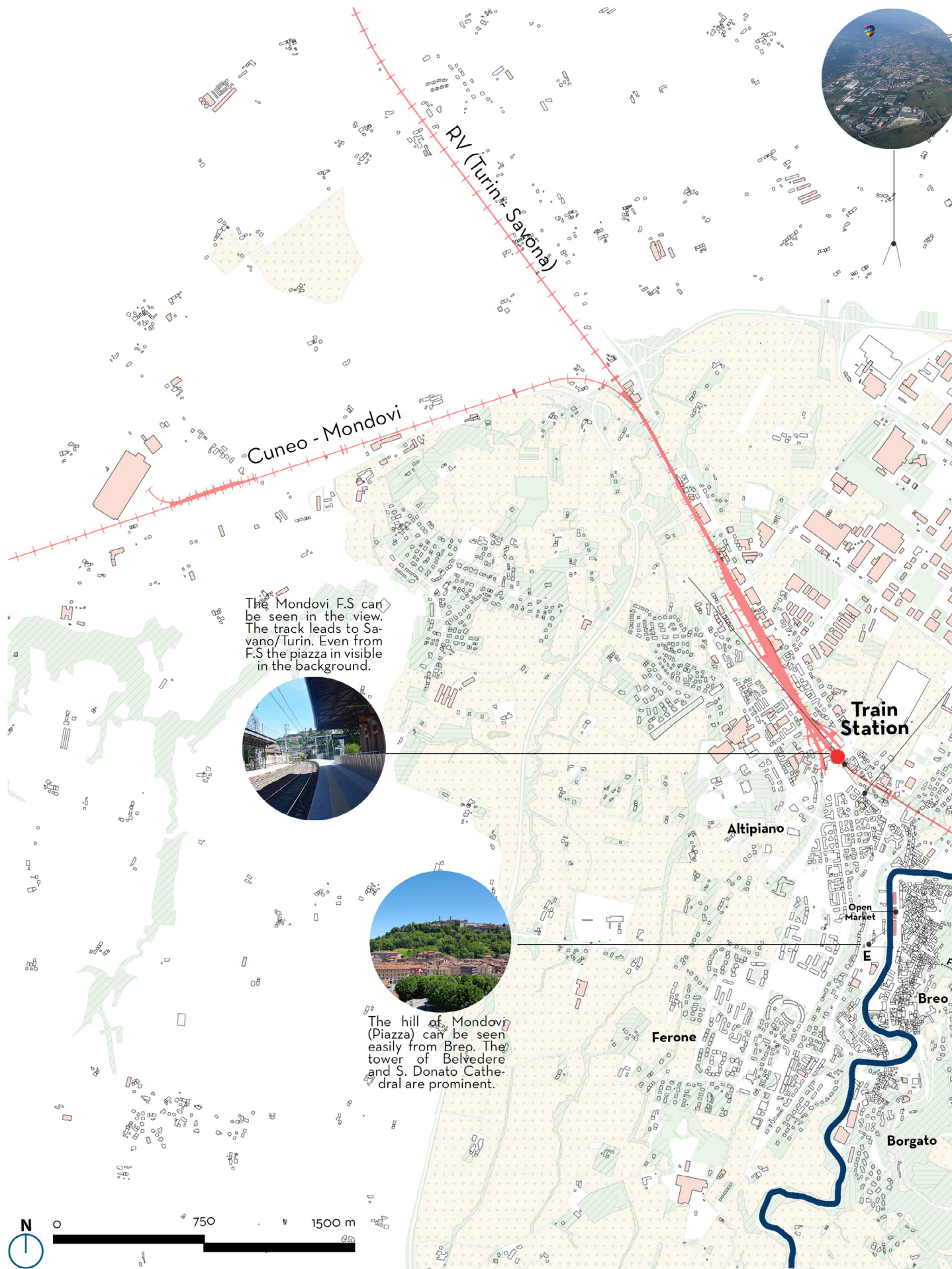


Image (Top) : Aerial View of Mondovi (Piazza & Breo)

Source: <https://www.alamy.com/>

Image (Bottom) : Train Station of Mondovi

Source: By Author

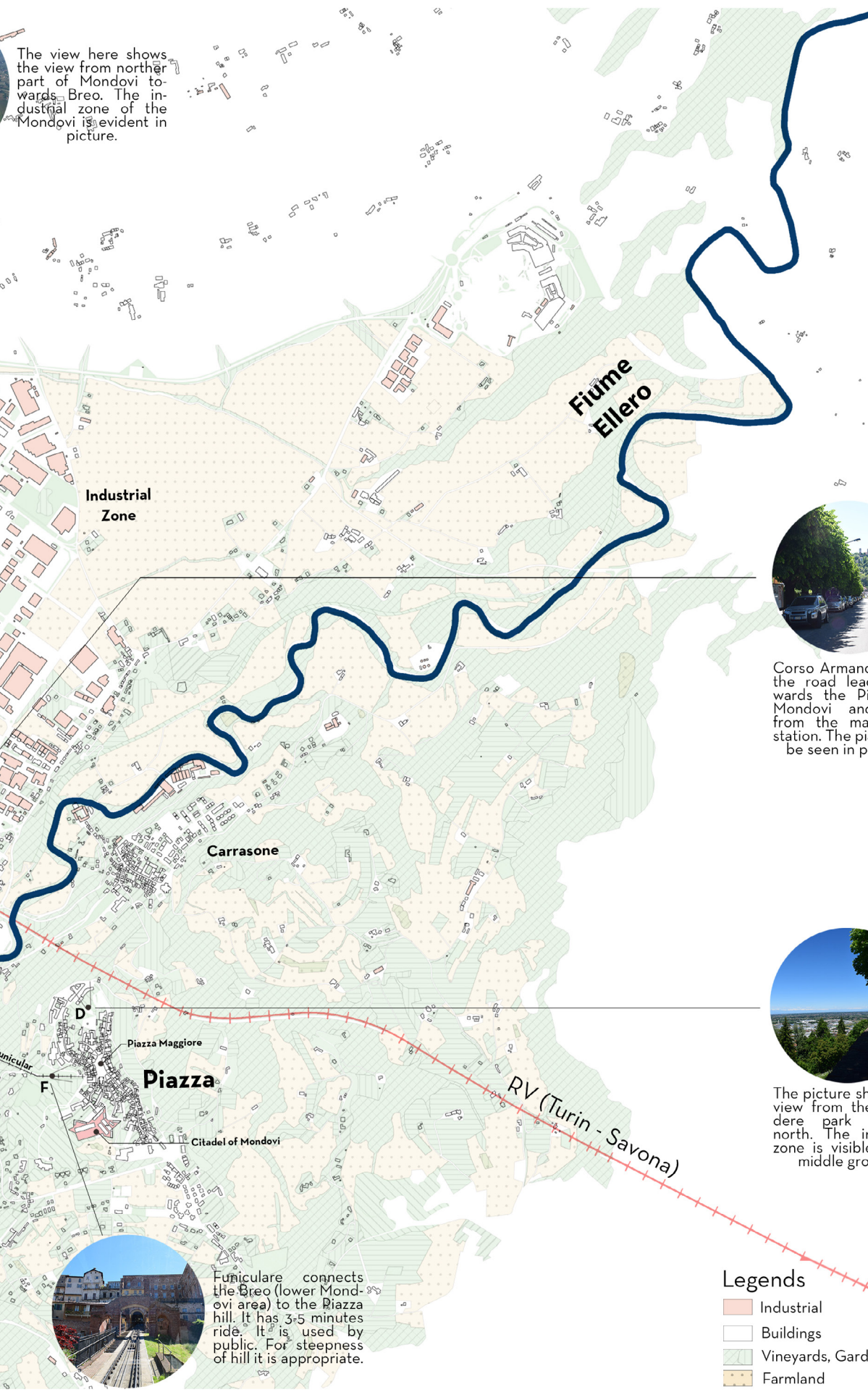


The Mondovì F.S. can be seen in the view. The track leads to Savano/Turin. Even from F.S. the piazza is visible in the background.



The hill of Mondovì (Piazza) can be seen easily from Breo. The tower of Belvedere and S. Donato Cathedral are prominent.





The view here shows the view from northern part of Mondovi towards Breo. The industrial zone of the Mondovi is evident in picture.



Corso Armano Diaz is the road leading towards the Piazza of Mondovi and Breo from the main train station. The piazza can be seen in picture.



The picture shows the view from the Belvedere park towards north. The industrial zone is visible in the middle ground.



Funiculare connects the Breo (lower Mondovi area) to the Piazza hill. It has 3-5 minutes ride. It is used by public. For steepness of hill it is appropriate.

- Legends**
- Industrial
 - Buildings
 - Vineyards, Gardens, etc.
 - Farmland

the Mondovì Breo station), the Cuneo-Mondovì railway , the Fossano-Mondovì-Villanova tramway and the Mondovì-San Michele tramway , which also served the famous sanctuary of Vicoforte. In addition to this, it is also connected by highway (as shown in the picture). The main highway which can be used to reach Mondovi from city of Turin is E717, which actually connects Turin and Savona. A second alternative is to take SP 20 (which passess through Savigliano and Cuneo) and the SP 5 (which connects Cuneo and Mondovi).

Since, Cuneo is center of alot of important activities, SP 5 is helpful in connecting Mondovi to Cuneo.

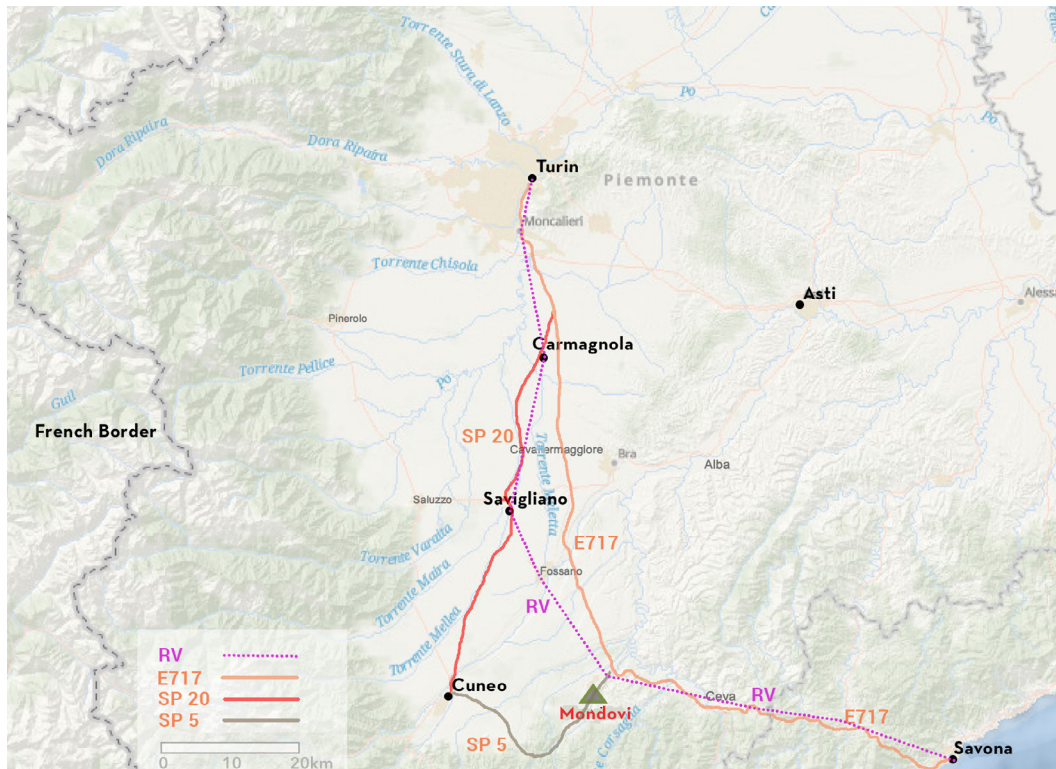


Image: Mobility Infrastructure of Mondovì

Source: arcgis.com

E. Parts of Mondovi

Mondovi - city in the province of Cuneo (Piedmont), on the Ellero stream (Tanaro basin), formerly called Monteregale. It consists of two distinct parts: the high one, or Piazza (located on the hill - 559 m asl) and the lower one, formed by the hamlets of

Breo, Borgao and Carassone.

.....
“The town is divided into rioni: Piazza (the most ancient), Breo, Pian della Valle, Carassone, Altipiano, Borgato & Rinchiuso.”
.....

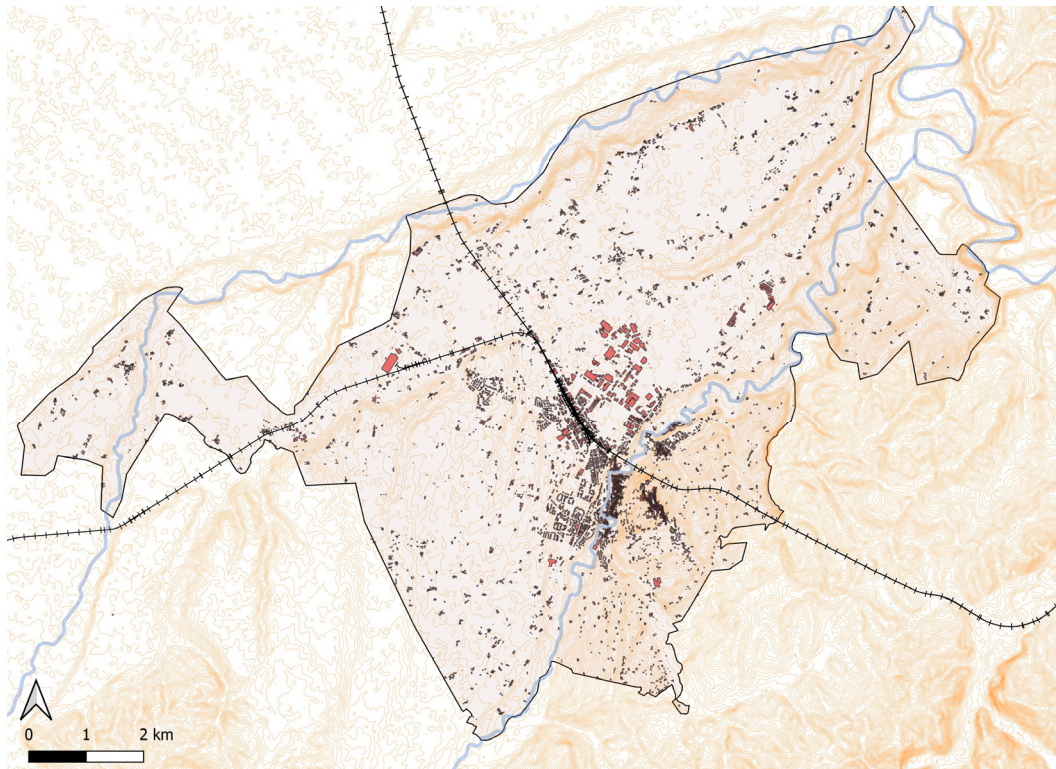


Image: Boundary of Mondovi
Source: GIS Software by Author (data from Openstreet-Map)



The town is divided into several *ri-
oni* (ancient quarters): Piazza (the
most ancient), Breo, Pian della Valle,
Carassone, Altipiano, Borgato and
Rinchiuso, lower, next to the Elle-
ro stream, developed from the 18th
century when industries developed
in Mondovì and when it was reached
by the railway. The districts of the
valley are united with that of Piazza
by funicular, m long. 550, electrified
in 1926. From the Belvedere, pro-
tected by the Bressani tower, you
can enjoy a magnificent panorama of
the Cuneo plain, dotted with towns
and closed by the large Alpine am-
phitheater, and the Langhe. The in-

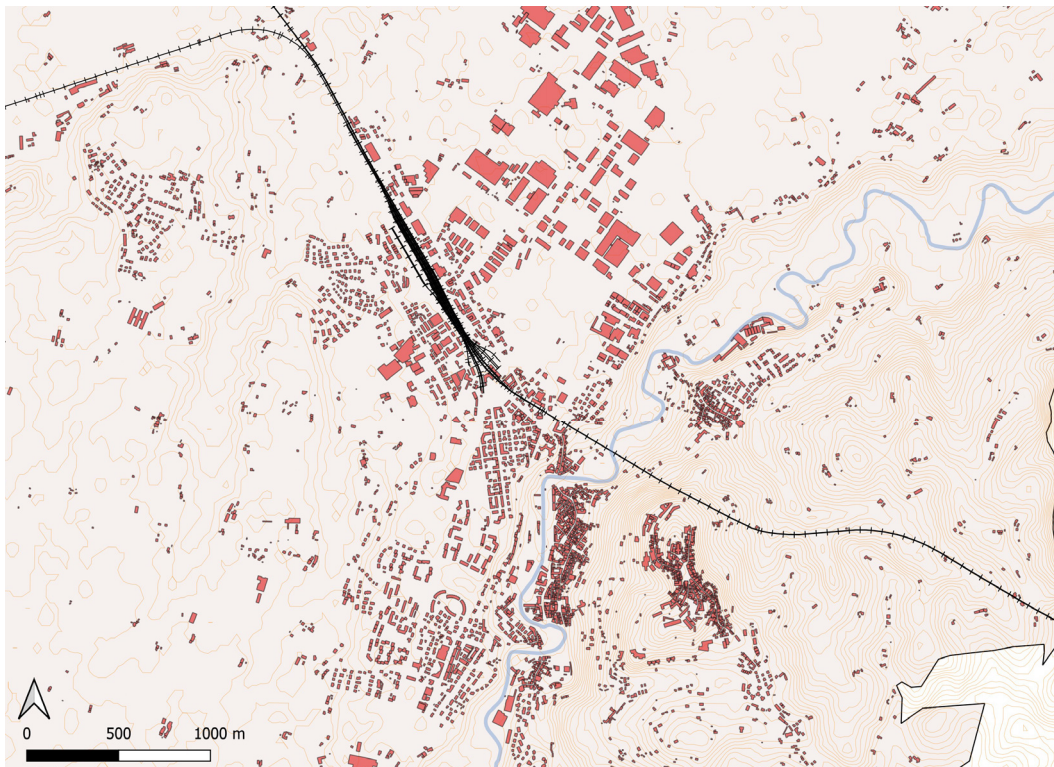
Image: Aerial View of Mondovì
Source: <https://www.turismo.it>

dustrial section of the city stretches
between the river and the foot of
the hills.

The industrial part of Mondovì is lo-
cated on the northern side and on
the other side of the railway track
(Turin-Savona Line). Majority of res-
idential and other amenities are lo-
cated on the opposite side of indus-
trial area and thus on the other side
of the railway track. The residential
area is further naturally divided into
two parts - on both sides of the 'Fui-
me Ellero'.

F. Urban Built Map

The area of the municipality is 87.29
sq km. The urban built area of Mon-
dovì is shown in the map. The built
area majorly consists of large scale
buildings in the industrial zone on the
northern side of Mondovì. Though
residential units are scattered as
well as in compact form. In the pe-
ripheral parts the units are more
scattered while areas near railway
station and northern parts are com-



pact. Residential units mostly consist of double and triple story buildings but a row of partments (low rises) are also present on the left side 'Fuime Ellero'.

The built area is higher in the Breo as the houses are more compact. This area includes commercial area, some municipal offices, religious buildings

etc. The area has open market (sheltered under a structure) where people come for daily groceries.

.....
 "The area of the municipality is 87.2 sqkm. It comprises of industrial buildings, apartments, houses, civic

Image: Urban Built Area of Mondovì
Source: GIS Software by Author (data from Openstreet-Map)

and religious buildings. It also contains public parks, open markets, schools and abandoned structures.”

On the high altitude the built fabric is relatively compact. Buildings ranging from residential, public square, religious buildings, schools, shops and museum etc. The piazza also comprises of abandoned buildings including some former schools and military barracks (on the southern and northern side of the Piazza). The piazza has rarely single story houses.



Image: Built Fabric of Mondovi

Source: <https://www.ideawebtv.it/2020/04/28/mondovi-riaprono-i-mercati-alimentari-mascherine-a-commercianti-e-artigiani/>

There are some tourists facilities in the form of AirBnB and guests houses in the piazza. Parts of Mondovi.

G. Landscape Map

The land register gives 8140 hectares of forest land, 589 of unproductive surface. The arable land (43.25% of the forestry agricultural area) and the meadows (35.40%) prevail absolutely; specialized wood crops are of great importance (845 hectares, equal to 18.38%, of which 139 are fruit orchards and 706 are vineyards); woods and chestnut trees follow (8.17%).

The Landscape map of Mondovi is shown below (obtained from GIS). The specific hatches filled represent different land categories. This includes forest area, farm, heathland, natural reserves, vineyards, parks, brownfield sites etc. Since the built environment of the Mondovi is mostly concentrated in some major parts therefore the natural (landscape) surrounds the area. The terrain of

the Mondovi is uneven around the Piazza hill. The steep contours start roughly from the Breo and gradually ascend to the top. It therefore comprises of significant uncultivated area. The surface is more planar when you go to peripheries.

.....
“Mondovi has 8140 hectares

of forest land, 589 hectares of unproductive surface. The arable land area is 43.2 % of the forestry ... 139 hectares of fruit orchards and 706 are vineyards. . .”

.....
The ‘Fuime Ellero’ is also part of the

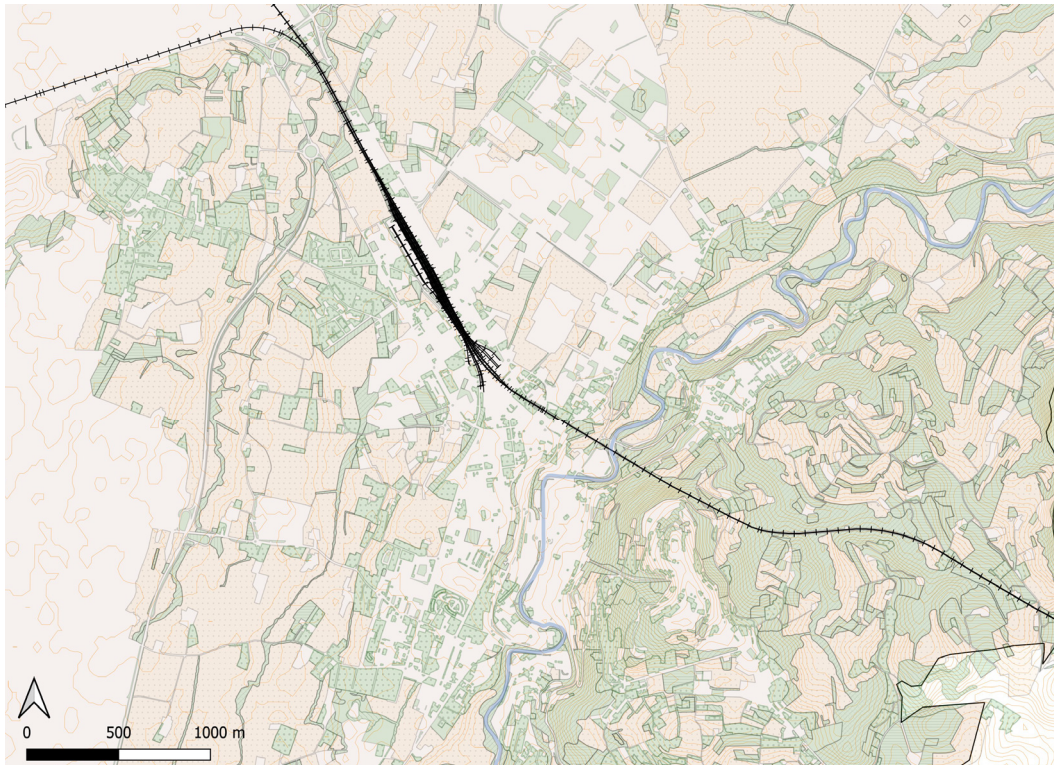


Image: Landscapae (Natural Area) Map of Mondovi
Source: GIS Software by Author (data from Openstreet-Map)



natural landscape. Entering the Mondovì from north-eastern side it flows in the south-western part. The level of the water varies with throughout the season according to seasons.

H. Transport Map

Following the opening of the Fossano-Mondovì-Ceva, double-track section, inaugurated on 28 October 1933, which required the construction of a grandiose viaduct in the city, Mondovì has become an important railway junction with the Mondovì-Fossano lines (km. 19), and

Mondovì-Cuneo (km. 27) on the Turin-Breil-Ventimiglia; Mondovì-Bastia (km. 10) and Mondovì-Ceva (km. 20) on the old Turin-Ceva-Savona artery; a private railway connects Mondovì with Fossano (km. 25) and with Villanova (km. 7).

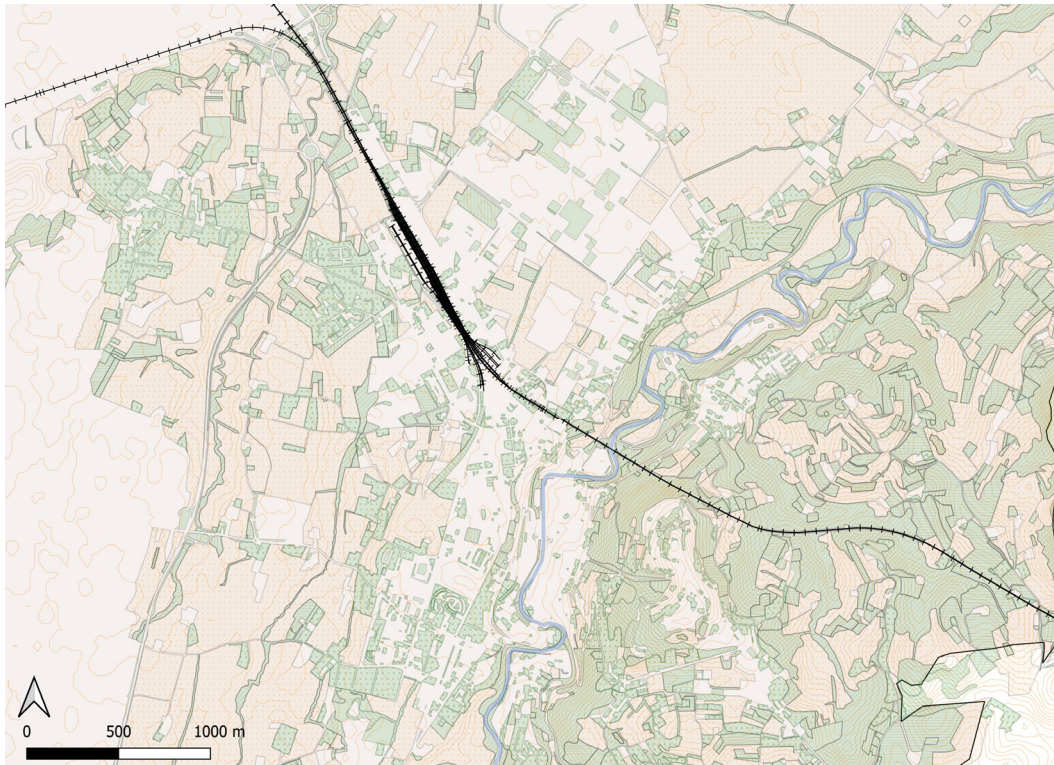


Image (top) : Landscape Terrain (From Belvedere)

Source: By Author

Image (bottom): Urban Transport of Mondovì

Source:<https://comune.mondovi.cn.it/contenuti/248894>



.....
“Mondovì connects to Fos-
sano (19 km), Cuneo (27 km),
Bastia (10 km), Ceva (20
km) and Villa Nova (7 km)
through railway line. It com-
prises of 4 lines for local

public transport. Line 1 and
Line 2 connects with the
city center, Line 3 connects
with Piazza Maggiore while
Line 4 to railway station...”

.....
The new local public transport of
Mondovì has been active since 1 July

Image: Transport Map of Mondovì
Source: GIS Software by Author (data from Openstreet-
Map)

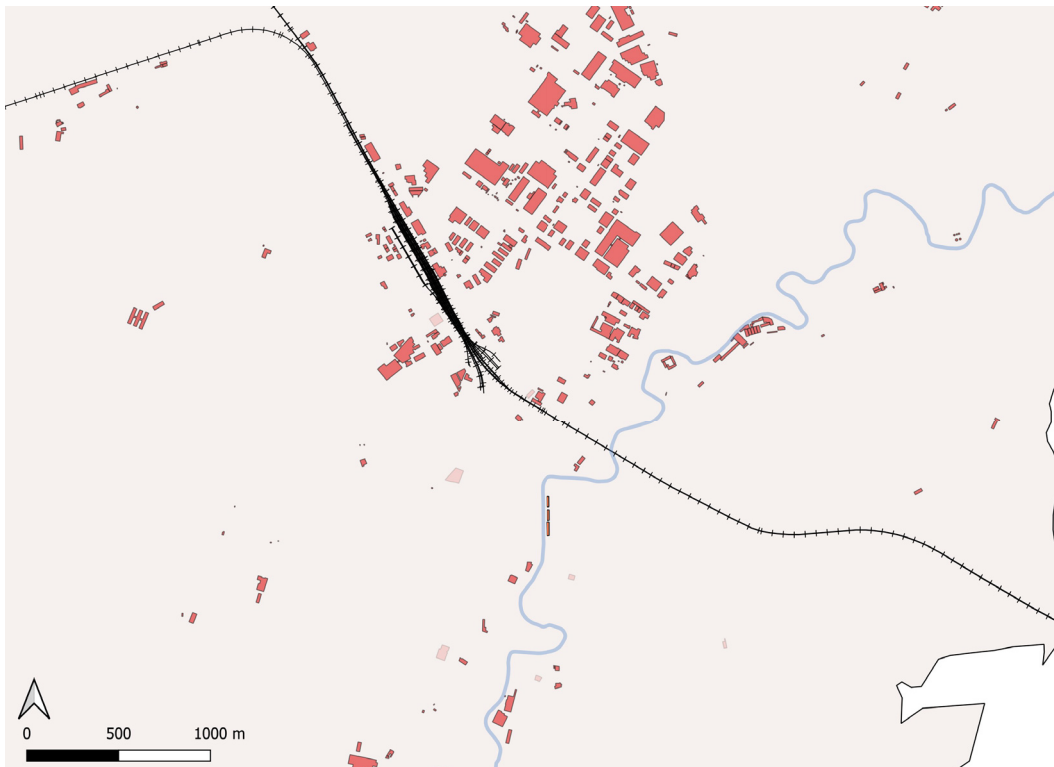


2020 , a more widespread and timed service to move around the city in a sustainable way. The new system is divided into 4 lines , two of which have been newly introduced: line 1 and line 2 cross the city center and serve the funicular, accessible with a short walk of about 5 minutes (from Corso Statuto); line 3, making a circular route, systematically connects

Piazza Maggiore and the Breo district of Mondovi.

Line 4 connects the railway station to Mondovicino. The images on the page show transport maps on different scales how different parts of Mondovi are connected to each other.

Image: Urban Transport of Mondovi
Source:<https://comune.mondovi.cn.it>

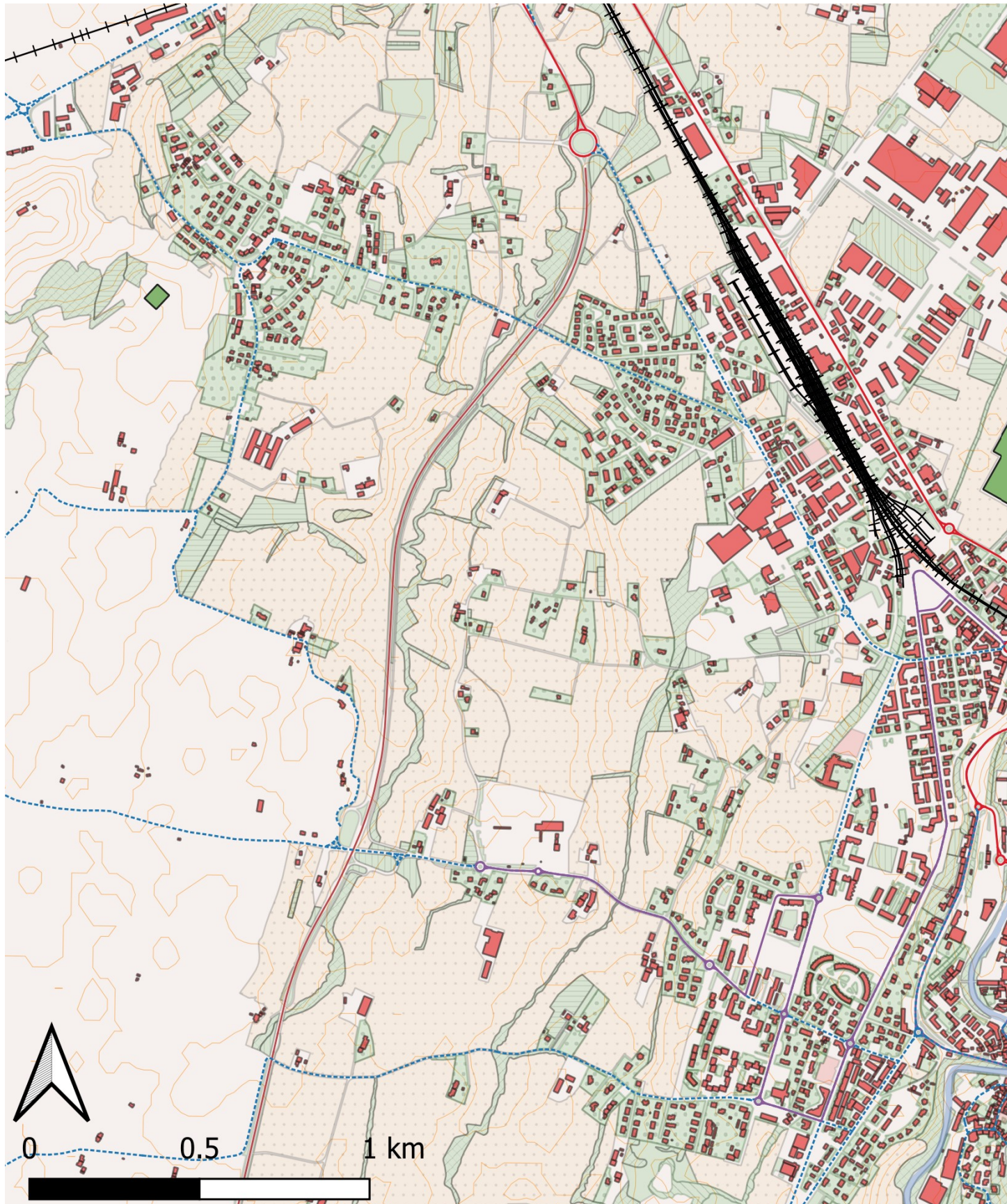


I. Economic Map/Assets

Industries are also important for Mondovì's economic life: the 1927 census gave 366 businesses with 2787 employees for the entire municipality. The most important factories are those for the manufacture of

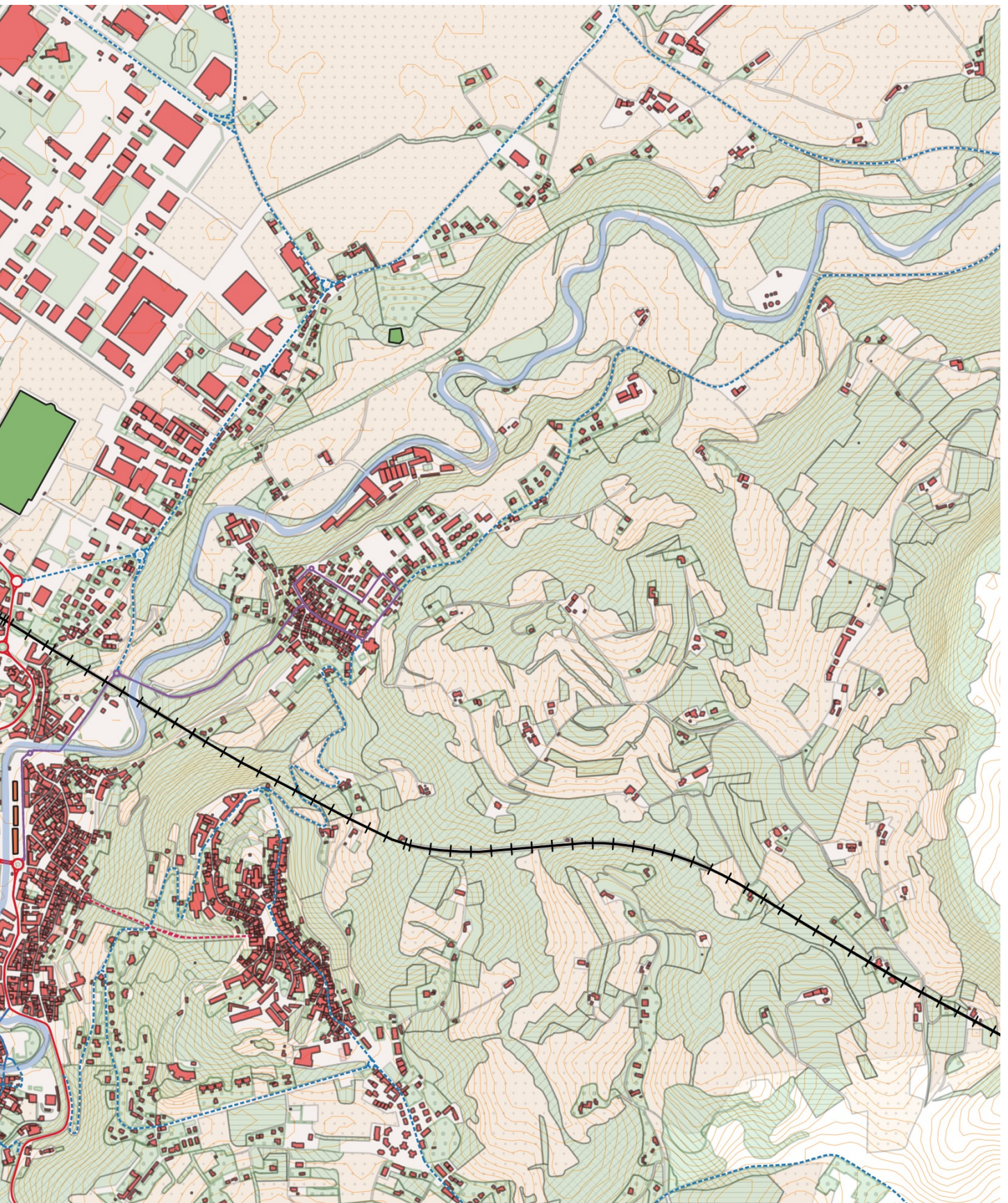
Richard-Ginori and Vittoria ceramics, located in the hamlet of Carassone. Currently, the industrial sector is concentrated in the periphery of the Mondovì where we have large scale industrial buildings. While the small scale economic activities are scattered in the city.

Image: Economic Map of Mondovì
Source: GIS Software by Author (data from Openstreet-Map)



Map of Mondovi - Built and Natural

Source: by Author from GIS Software (Information obtained from OpenstreetMap)





Map of Mondovi - Built and Natural
Source: arcgis.com



Carassone

Breo

Piazza

Argato

Plan (Commune di Mondovi)

Legenda

Cartografia catastale (Aggiornamento gennaio 2022)

Confine di mappa

Particelle

Strada

Acque

Numeri parcelle

Terrine censurate

Terrine particolari

Gratta di annessione

Punto ingegneristico

Punto idrografico

Segno convenzionale di unione

Flusso sommario acque

Ripartizione

Linee varie

Piano Regolatore - Variante Parziale n.27 - Pianimetria di progetto - Territorio

DESTINAZIONI RESIDENZIALI

LUA - Perimetrazione della zona L.U.A. (trattamenti urbani aventi carattere ambientale), (art.28 NTA)

BR.I - Zona residenziale con capacità edificatoria esaurita (art.27 NTA)

BR.II - Edifici per i quali è prescritta la demolizione

BR.III - Zona residenziale con capacità edificatoria esaurita compresa nel Piano Ampliamento "Miguri" (art.27 NTA)

BR.IV - Zona residenziale consolidata di impianto urbano (art.28 NTA)

BR.IV.b - tralicci di edilizia pubblica

BR.III - Zona residenziale parzialmente consolidata (art.28 NTA)

BR.III.a - Area subordinata a concessione convenzionata

BR.IV - Zona residenziale consolidata di impianto urbano (art.28 NTA)

BR.IV.b - In fascia di rispetto stradale

BR.IV.b - Sul territorio

BR.IV.b - Bivio e perimetro del centro abitato

BR.V - Zona residenziale culturale in ambito urbano (art.31 NTA)

VP - Zona destinata a verde privato in ambito urbano (art.32 NTA)

CR.I - Zona residenziale di completamento edilizio (art.33 NTA)

CR.II - Area subordinata a concessione convenzionata

CR.III - Zona residenziale di completamento edilizio

CR.IV - Area subordinata a concessione convenzionata

CR.IV - Zona residenziale di nuovo impianto (art.35 NTA)

TR - Zona di trasformazione a prevalente destinazione residenziale (art.36 NTA)

ATTIVITA' ECONOMICHE

BC - Zona destinata ad attività terziarie e commerciali in ambito urbano consolidato (art.37 NTA)

BM - Zona destinata ad attività miste, artigianali e commerciali esistenti (art.38 NTA)

BI - Zona destinata ad attività artigianali e produttive esistenti (art.39 NTA)

IC - Zona destinata alla distribuzione di carburanti (art.40 NTA)

CC - Zona destinata ad attività terziarie e commerciali di nuovo impianto (art.41 NTA)

COO - Zona speciale destinata ad attività ricreative e commerciali di nuovo impianto (art.41 NTA)

DM - Zona destinata ad attività miste artigianali e commerciali di nuovo impianto (art.42 NTA)

DI - Zona destinata ad attività produttive di nuovo impianto (art.43 NTA)

DC - Zona destinata ad attività estrattive (art.44 NTA)

TT - Zona di trasformazione a prevalente destinazione terziaria - commerciale (art.45 NTA)

TP - Zona destinata ad attività pubbliche, private o enti di interesse collettivo (art.46 NTA)

TPIC - Altezze per la collettività, istruzione, ospitalità

TPIC - Altezze per la fornitura di servizi (Enel, Vti, Italgas, Telecom...)

TPIC - Altezze sportive per lo sport libero e di gioco

TPIC - Altezze universitarie e per l'istruzione

TPIC - Aree riservate alle funzioni ferroviarie in attività

TPIC - Aree riservate alle funzioni ferroviarie disattivate

ATTIVITA' AGRICOLE

EE - Zona agricola (art.47 NTA)

EE/3A1 - Edifici in ambito rurale compresi in classe di pericolosità geomorfologica IIa1

EE/3A - Aree agricole di salvaguardia ambientale

EP - Zona agricola per attività produttive agricole o fornicie esistenti (art.48 NTA)

EE/3A - Aree in cui è consentito l'impiego di allevamenti intensivi (art.47 NTA)

SERVIZI PUBBLICI

SP.I - Zona destinata a servizi sociali ed attrezzature a livello comunale - art. 21 L. n. 56/77 (art.49 NTA)

SP.III - Aree per l'istruzione

SP.III.a - Aree per attrezzature di interesse comune

SP.IV - Aree per spazi pubblici, a parco, per farndo urbano, il gioco e lo sport

SP.III - Aree per parcheggi pubblici

SP.III - Aree per servizi produttivi

SP.I - Zona destinata a servizi sociali ed attrezzature di interesse generale - art. 22 L. n. 56/77 (art.50 NTA)

SP.III.a - Aree per attrezzature di interesse collettivo

SP.III - Aree per attrezzature relative all'istruzione superiore dell'obbligo

SP.III - Aree per attrezzature sociali, sanitarie ed ospedaliere

SP.III - Aree per parchi pubblici, urbani e comprensoriali

SP.III - Aree per attrezzature militari

SP.III - Aree per lo svago e lo sport

SIMBOLOGIE

Numera delle aree urbanistiche

Numera e classificazione delle aree soggette a Strumento Urbanistico Esecutivo

Perimetrazione delle aree sottoposte ad attuazione mediante Strumento Urbanistico Esecutivo

Fila fissa di edificazione

Viabilità in progetto presunta

Viabilità in progetto presunta

Piste ciclisti e percorsi pedonali

Collegamenti (funzionari, passerella scalinate...)

Depuratori

Viale alberato presunta

ZONE DI INSEDIAMENTO COMMERCIALE

Addensamenti commerciali A1

Addensamenti commerciali A3

Addensamenti commerciali A4

Localizzazioni commerciali L1

Localizzazioni commerciali L2

VINCOLI GEOMORFOLOGICI

1 - Aree a pericolosità geomorfologica minima o nulla

2 - Aree a pericolosità geomorfologica moderata

3a1, 3a2, 3b - Aree a pericolosità geomorfologica da elevata a molto elevata

3c - Aree a pericolosità geomorfologica molto elevata con divieto di qualsiasi utilizzazione urbanistica

ALTRI VINCOLI

Vincolo idrogeologico (R.D. 30/12/1923 n.3287)

Perimetrazione ai sensi della L. 445 del 9/7/1998 (Area interna delle frecce)

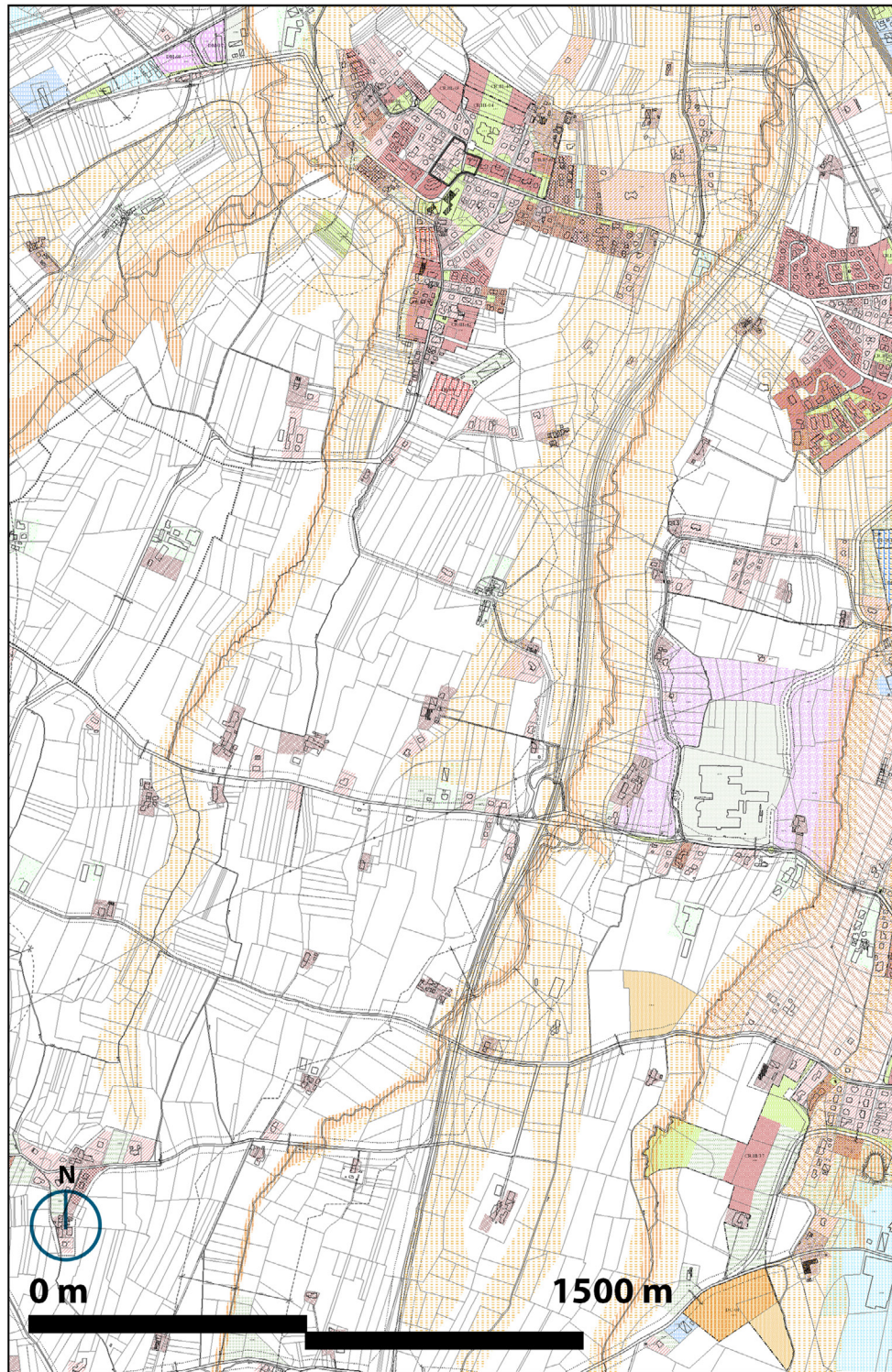
Edifici vincolati ai sensi della legge 1089/39

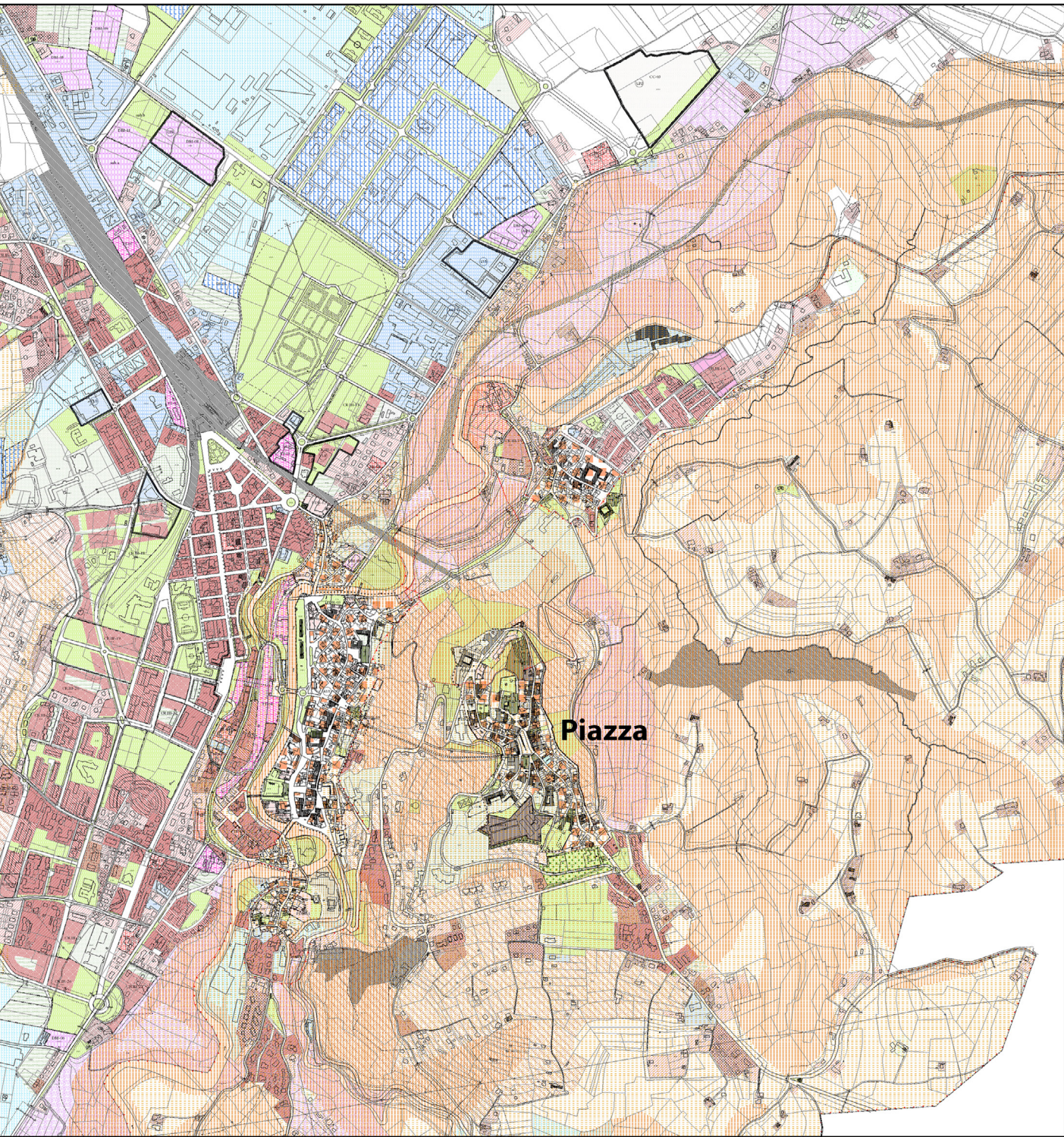
Edifici segnalati ai sensi dell'art. 24 L. n. 56/77 <bu>

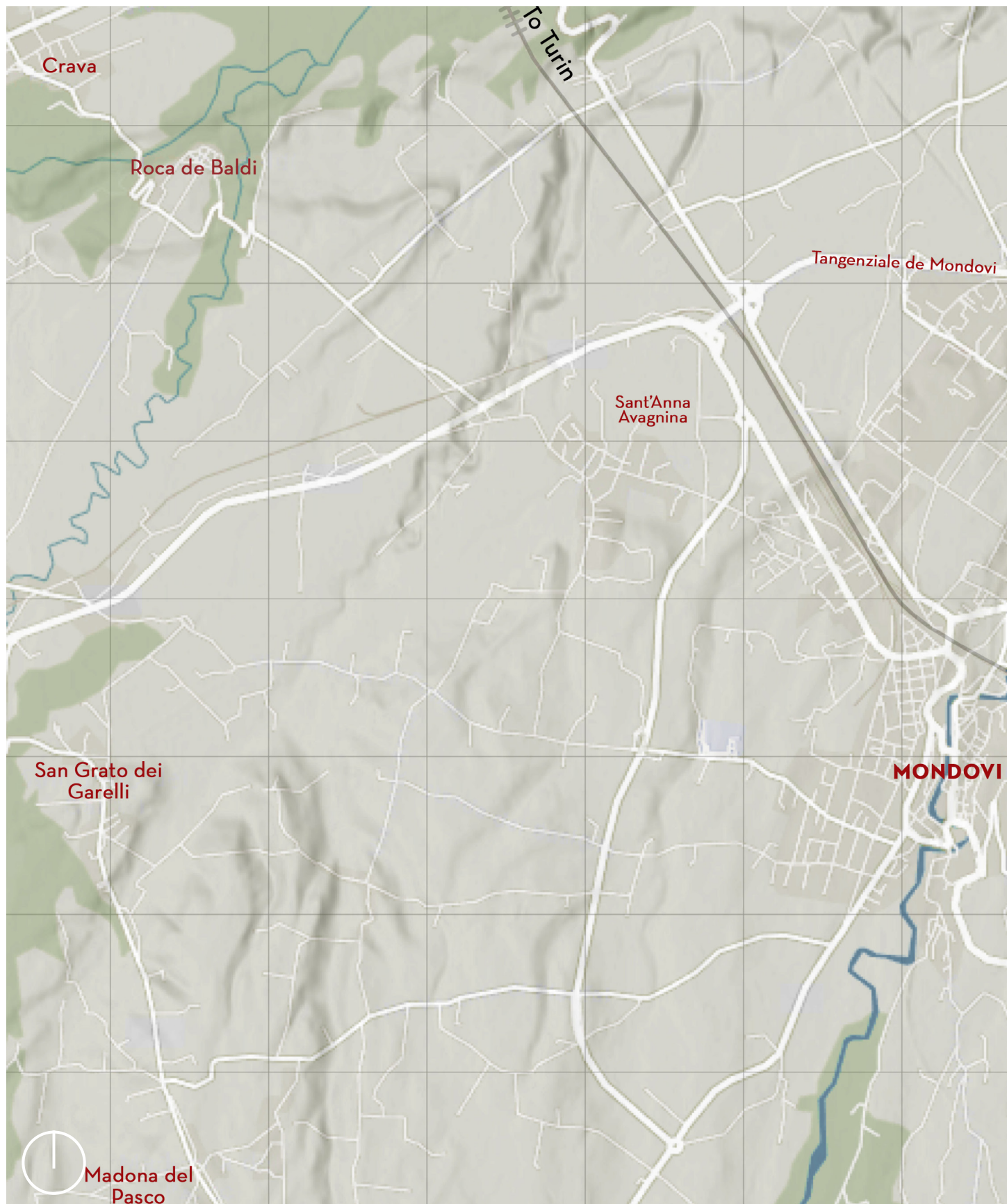
b - di carattere storico-documentario

Aree vincolate ai sensi della legge 1497/39 <bu>

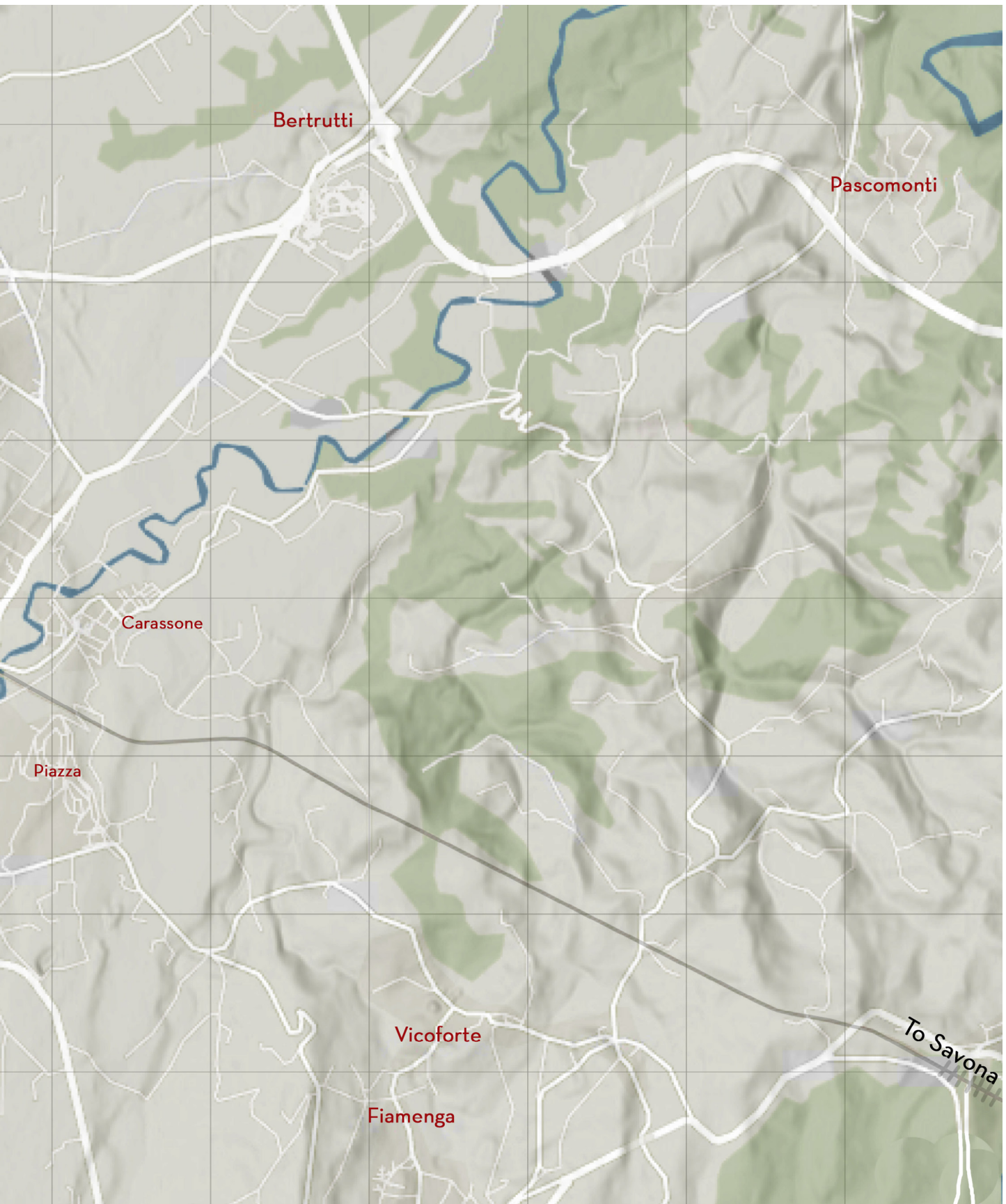
riserva naturale speciale dell'OSI Crave-Morozzo







Location of Mondovi - Macro Level
Source: arcgis.com



J. Giampiero Vigliano, Urban Planning and Mondovi's P.R.G.C

The architect Giampiero Vigliano was born in Settimo Torinese in 1922. He was also dean of the Faculty of Architecture of Polytechnic of Turin. He is considered as 'pioneer of Italian urban planning' of 1960s and 1970s. He has written numerous writings encompassing the historical, urban and environmental studies relating to Piedmont. These writings particularly include 'Frankish villages and new villages in Piedmont' which was written in 1957. In 1964, he wrote 'Traditional city and city-region'. In 1966 he wrote 'Protection and enhancement of historic Piedmontese Centers while in 1973 he wrote 'Fortified works in Piedmont'. Apart from these he has worked also on regulatory plans and studies on construction of district (Cascina Ollino region in Settimo Torinese around 1953). The study focused on possible urban planning and construction after second world war, especially at the time

of the economic boom, between the fifties and sixties of the last century. Under Proff. Molli Boffa they developed a plan with creation of zones for residences, industrial expansion, public green areas, collective services etc. The plan approved in 1954 by city council but not implemented due to fear of planning constraints. In his work of 'Il piano regolatore generale comunale di Mondovi. Prefazione validita dei piani regolatori' with other publications, he has outlined the territory, areas and districts of Mondovi. Also the fundamental concepts of P.R.G.C are outlined with the main problems and needs (after analysis).

.....
“... his work of 'Il piano regolatore generale comunale di Mondovi. Prefazione validita dei piani regolatori' with other publications, he has outlined the territory... with the main problems and needs...”
.....

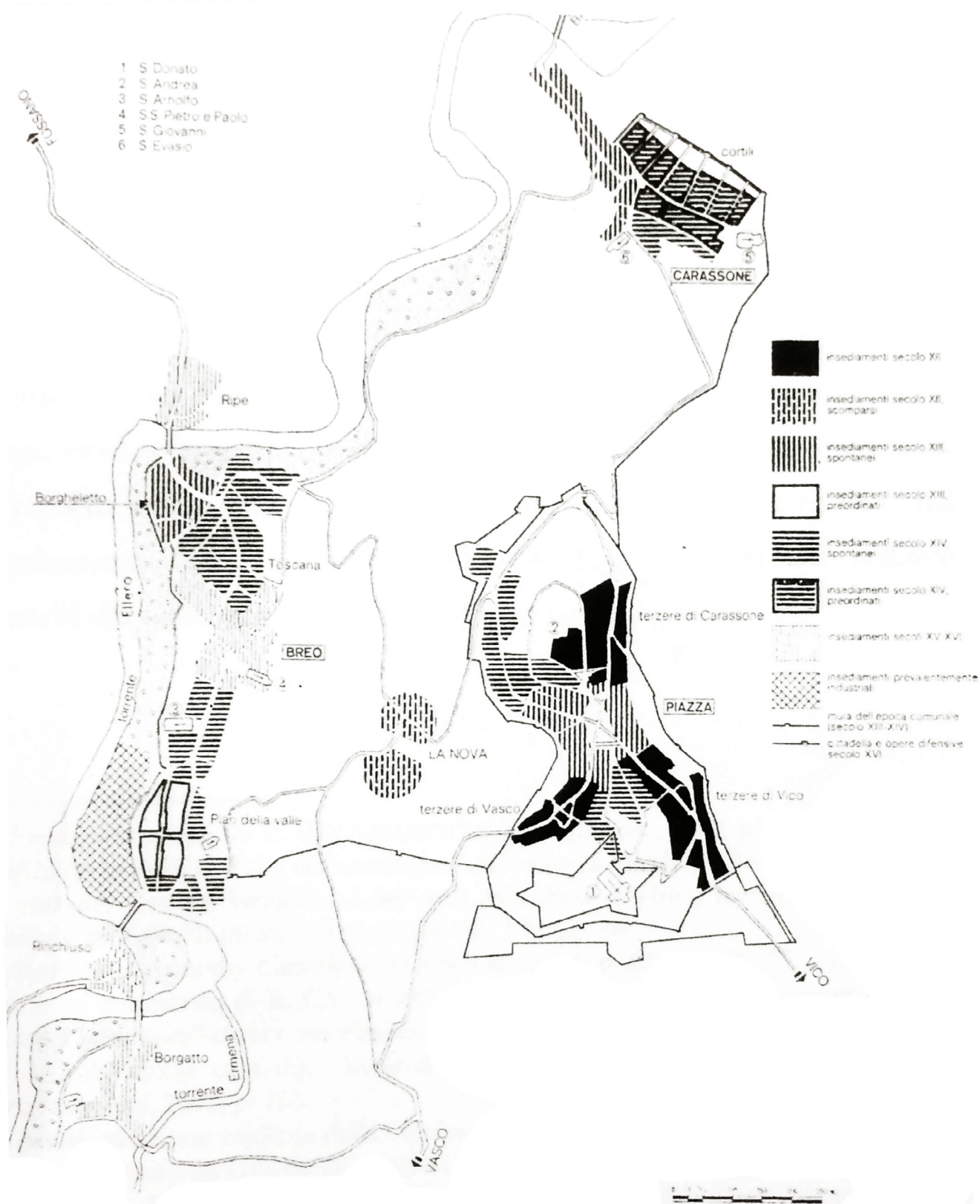
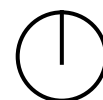


Image: Town Planning of the Mondovì
(from the origin to 16th century)

Source: Giampiero VIGLIANO, *L'urbanistica di Mondovì dalle origini al secolo XVI*, Turin 1967



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Chapter 05

P.R.G.C - Municipal Regulations

5.1 AN OVERVIEW OF P.R.G.C

In the following pages of this section, is information about the Piano Regolatore Generale Comunale (P.R.G.C) of Comune di Mondovì. The P.R.G.C provides specific guidelines for stakeholders in the region regarding land usage, development projects, real estate and other various topics which are linked to the possible/planned interventions in the built fabric of the place.

There are couple of (examples) municipal works carried out by the Comune of Mondovì. These works were part of the either development or enhancement of the urban fabric of Mondovì. Projects like MOVlcentro aimed for increased connectivity and sustainable mobility solutions in Mondovì.

So different proposals including parking facilities in required places, mechanized services like escalators to reach steep places, increased as-

phalt road connections for greater accessibility were part of it. While one project had the aim to protect the natural landscape of the hill of Piazza, as it has had been part of its history.

In short, these municipal projects give a general idea of the aims of the administration. And their intentions towards the built and natural fabric of Mondovì. Last but not least, they are about optimizing the existing resources for the greater good of public and place.

.....
“... these municipal projects give a general idea of the aims of the administration. And there intentions towards the built and natural fabric of Mondovì ...”
.....

In addition to this, the chapter also gives details of the regulations regarding our site i.e. ‘Citadel of Mondovì’.

5.2 PIANO REGOLATORE GENERALE COMUNALE (COMUNE DI MONDOVI)

Overview

‘The Municipal General Regulatory Plan (P.R.G.C.) must be understood as a revision variant of the current one approved by the Piedmont Region with the Delibera della Giunta n. 45/18947 on 02/1988, supplemented and modified by subsequent variations prepared by the Municipal Administration, it is drawn up according to the definitions.’

The P.R.G.C incorporates and integrates the new Building Regulation of Comunes which in our case is Comune di Mondovi. They are drawn up on the basis of the Model Building Regulations of the Piemonte Region.

In respect to our site i.e. Citadel of Mondovi, the P.R.G.C outlines some major guidelines and information that needs to be followed by stakeholders dealing with the said property

located in Piazza of Mondovi. The document encompasses topics like; Urban area category, constraints, type of interventions, intended uses etc. These are explained individually in the coming paragraphs.

.....

“... the P.R.G.C incorporates and integrates the new building regulation of Comunes which in our case is Comune di Mondovi...”

.....

6.3 SITE INFORMATION FROM P.R.G.C

Land:

Mondovi ‘Sheet 93 Num. 172

Urban Area:

PDR - IUA - Urban settlements with an environmental character (Art. 26)
SP.I - Area for social services and

municipal equipment - art. 21 lur 56/77

Constraints:

The constraints which applied to the site are mentioned as under in the P.R.G.C.

- a. Type B - Type "B" facade constraint Passage (Allows for the changes under certain conditions but demands to maintain the existing integrity via materials and appearance. Also, demolition possible to ensure hygiene)
- b. Public Passage Obligation (Allotted space left for a public passage in plot next to the citadel)
- c. SUE_PDR.17 - Area subject to implementation through Executive Urban Planning Instrument - PDR.17

Type of Interventions:

The major and important interventions recommended for the site mentioned in the P.R.G.C are mentioned below:

- a. RC - Conservative Renovation

(the detailed explanation of the part is written in the Article 16 of P.R.G.C P2.1 while a description is also mentioned on the geoportal of the Mondovi/Piemonte)

- b. RT - Restoration (the detailed explanation of the part is written in the Article 16 of P.R.G.C P2.1 while a description is also mentioned on the geoportal of the Mondovi/Piemonte)

Historical & Artistic Constraints:

Historical-Artistic constraints comprise of particular laws related to historical entities. These are as follows:

- a. 1089 - Buildings restricted pursuant to law 1089/39. (A Law which has more than 70 articles which explain the protection of things of artistic and historic significance)

Remember that the Citadel of Mondovi comes under a specific category of Urban Settlements with an environmental character - IUA. The Article 26 of P.R.G.C (p2.1 Norme

Tecniche D'attuazione) deals such category. The P.R.G.C cartographically identifies the areas including urban settlements having an overall environmental character. They are: Piazza, Breo, via Ripe, Rinchioso, Borgato, Carassone.

The following provisions apply to these settlements:

- a. The areas, buildings and artefacts that the PRGC defines of historical-artistic interest pursuant to point 2, paragraph 1, Art. 24 of LR 56/77;

For the release of the building permit to buildings included in the categories:

- a. Authorization by the Superintendent of Monuments
- b. Regional authorization
- c. Binding Opinion of Regional Commission for Environmental Cultural Heritage for properties deemed by the PRGC of historical-artistic value.

This means that any intervention done on this site requires certain approvals from relevant authorities apart from other requirements to be

followed by design teams).

.....
“...citadel of Mondovi comes under category of Urban Settlements with an environmental character - IUA. The Article 26 of P.R.G.C (p2.1 Norme Tecniche D'attuazione) deals such category...”
.....

Intended Use:

In urban settlements with an environmental character, the following uses are allowed. These intended uses are mentioned in the Articles 8-11 of P.R.G.C. These intended uses are categorized into major and sub-classes which deal with specific functions. A brief description for these classes is written in the section in order to get an overview. These are as under:

a. Class r (Residential Use - but with specific requirements especially demand of public housing. It must involve opinion of the Municipal office)

b. Subclass p3 (Generally activities for production of goods but particularly handicraft activities for the production of goods and services. They can also constitute spaces for the retail or wholesale sale of goods)

c. Subclass tm2 (Activities related to the traffic and storage of goods, mobility in general. Activities aimed at the production of services for companies operating in the field of trucking and storage of goods. Aimed at families (hauliers, couriers, removals, taxi depots, etc.).

d. Subclass t1.2 (neighborhood businesses and medium-sized sales structures, markets and public businesses)

e. t2.1 and t2.2 (managerial, administrative, office activities. Main offices of public or private entities, credit

and insurance companies, businesses and companies, etc. Bank and insurance branches, traffic police and private security sections, professional offices of any type, real estate and tourist agencies, etc .)

f. t3.1 (For hotels, motels, etc. higher categories, possibly equipped with rooms for congresses or specialized meetings)

g. t3.2 (activities at local level, mainly located in non-specific lots, for hotels, pensions, inns, restaurants, etc.)

h. subclass t4 (cultural activities, research activities, etc.)

i. Subclass t5 (Social welfare, health (Public and Private), education and worship (social, school, health, welfare centers, colleges, boarding schools, etc.)

j. Subclass t6.1 (Cinema, Theaters, Auditorium and Exhibitions. Socio-cultural and recreational associations, art and craft schools, sport equipment including gyms for recre-

ational activities).

k. Subclass t7(Activities related to garaging cars and public, private or pulic parking lots)

.....

“...intended usages include class r, subclass p3, subclass tm2, subclass t1.2, t2.1, 2.2, t3.1, t3.2, subclass t4, subclass t5, subclass t6.1 and subclass t7 mentioned in P.R.G.C (P2.1 Norme tecniche D’attuazione). These deal with residential, production and tertiary activities...”

.....

Types of intervention

On all buildings included in the Urban Settlements of an Environmental character, the following types of

intervention are always:

- a. Ordinary and extraordinary maintenance
- b. Restoration without change of intended use.

All typological, structural and compositional elements that have historical and documentary value must be maintained: Limited to these elements, highlighted with appropriate symbols, the restoration intervention (RT).

Generally, these interventions include the consolidation, restoration and renewal of the building’s constituent elements, the insertion of accessory elements and systems required by the needs of use or by sector laws, and the elimination of elements extraneous to the original building organism.

These are works that involve the maintenance of the intrinsic and extrinsic characteristics of the building and of the original volume without plan-volumetric alterations, both in shape and external elevations, except for those necessary to remove

the 'superfetations'.

.....
“...the interventions envisaged for the blocks within the Citadel of Mondovi are RT (Restoration) and RC (Conservative Restoration)...”
.....

The types of intervention envisaged by the PRGC within the IUA areas are below. There are specific intervention types highlighted for the blocks within the citadel which are explained here under:

a. RT (Restoration):
For block E and F inside the Citadel

RT with clarification that the works must aim at the maintenance and recovery of the original parts of the building and at the elimination of any disfiguring elements that may be present, without increasing the SUL (Gross internal Volume).

The purpose of these interventions is to preserve or restore the original typological characteristics of the buildings, recovering their formal and structural unity

b. RC (Conservative restoration)
For Block A, B, C, D, G, H, and I

It proposes similar to those of the restoration. Mainly aimed at the hygienic and technological adaptation through a set of works that tend to the overall physical and functional recovery of the building.

They are also aimed at achieving levels of functionality, adequate to the needs of the permitted uses mentioned earlier in this section. These interventions include the restoration or replacement of some constituent elements of the building, the elimination, modification and insertion of new elements and systems, as well as internal distribution changes to the real estate units that make it possible to obtain organic real estate units, also by merging them.

Chapter 06

Piazza Mondovi

6.1 PIAZZA MONDOVI

As mentioned in the previous sections, the Piazza of Mondovi is the oldest part of the Mondovi located 550 meters above the sea level. The origin of the place goes back to 12th century when the people from the vicinities gathered to form a new human settlement, free of feudal powers.

The hill (Piazza of Mondovi) has an elongated irregular shape (previously surrounded by a defensive wall- remnants still present) which stretches from the northern tip to



Image (top) : Bird Eye View of Mondovi Piazza
Source: [tripadvisor.it](https://www.tripadvisor.it)

the southern. These tips are at a higher level as compared to the middle part (area of Piazza Maggiore). With a depression in the morphology of the hill at the middle , all the streets on the piazza lead to the Piazza Maggiore. It is a public square, with two levels and surrounded by portico. The hill (Piazza Mondovi) overlooks the whole city of Mondovi. There are various significant historical and cultural heritage assets scattered across the Mondovi Piazza. Some of these important cultural assets are highlighted in this chapter. Most of them are concentrated around the main piazza i.e. Piazza Maggiore. The palace of the governor, the ancient town hall (today the public library) and other buildings are part of the cultural heritage.

.....
“... There are various significant historical and cultural heritage assets scattered across the Mondovi Piazza...”
.....



Image: Catasto Napoleonico
Source: Archivio Storico Città di Mondovì - Catasto Napoleonico Stefano Vigliada Misuratore, 1796-1810

Piazza Mondovi



The Jesuit church and college in Piazza Maggiore is dedicated to San Francesco Saverio and called “della Missione”. It has been built in 1655 on a project by Giovenale Boetto

Image: Piazza Maggiore, Mondovi
Source: gettyimages

and completed in 1733. It has a single baroque nave, with red columns, frames and wooden decorations, and frescoes (1675-77) by Andrea Pozzo.

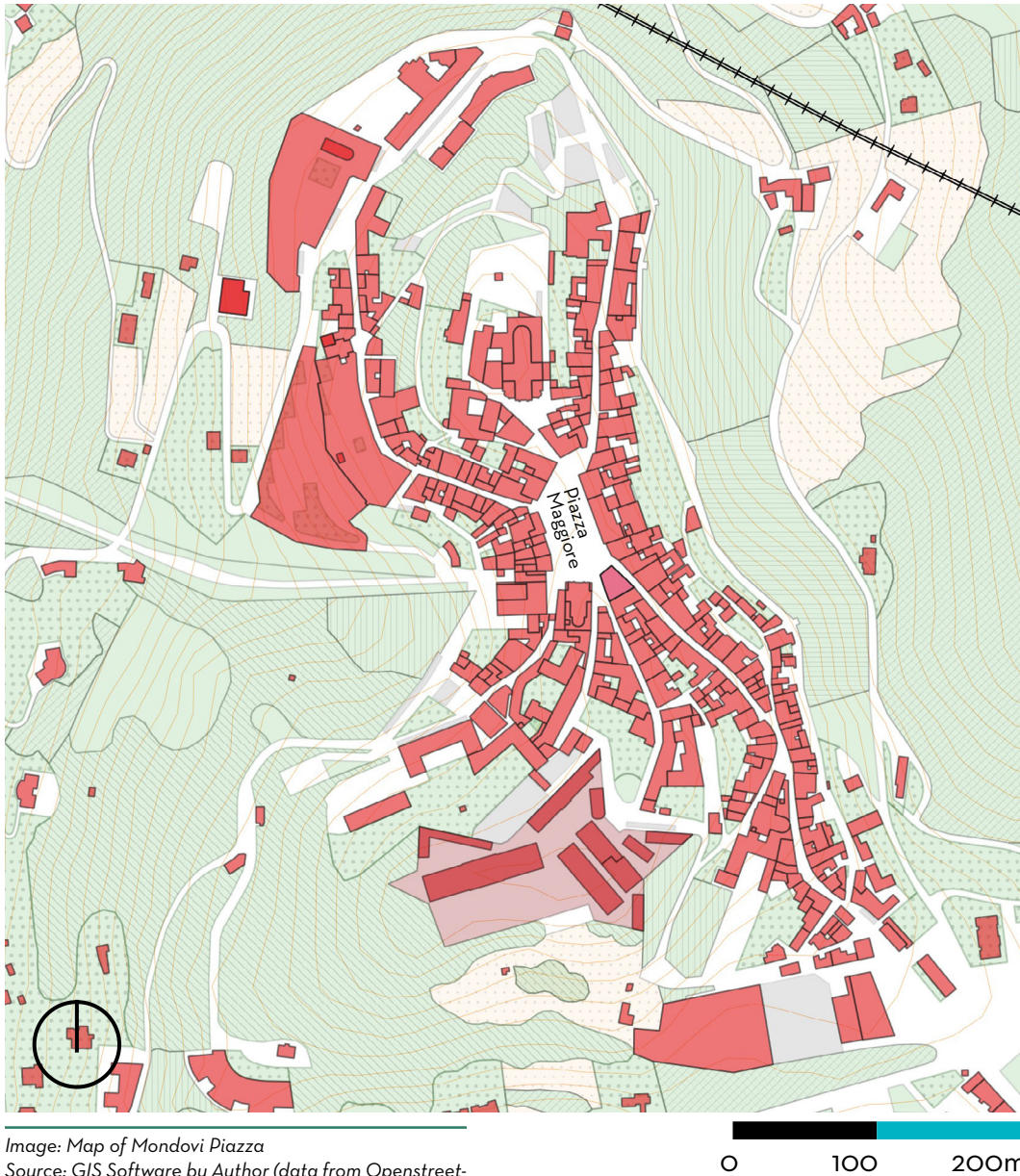


Image: Map of Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-Map)

6.2 ACCESSIBILITY VIA FUNICULAR

Currently the Mondovì Piazza is accessed by primarily three (03) ways: by car route, by walk and the funicular. It connects the lower part of Mondovì and takes around ten minutes to Piazza offering a beautiful view of Mondovì.

.....
“... currently the Mondovì Piazza is accessed by primarily three (03) ways: by car route, by walk and the funicular...”
.....

The other end of the funicular is next to the Piazza Maggiore therefore when one reaches the top of the Mondovì Piazza, he/she can start walk to rest of the hill easily (since the Piazza Maggiore helps as a spatial landmark).

Image: Funiculare from Breo to Piazza Mondovì
Source: By Author



In 1886, as a result of the difficult connections between the Breo Commercial Quarter and the Piazza District, the first steam plant capable of connecting the two areas of the city was built.

The study of the project was entrusted to Alessandro Ferretti (1851-1930), who created some of the first funicular railways built in Italy. The first replacement of the cable cars took place in 1923 and the next step, the most important, was replacing the counterweight water system with electric traction, which took place in December 1926. In 1941 the entire

cable car railway was modernized by installing a more powerful engine. This date also marks the introduction of the last generation of the blue funicular cable cars.

In January 2005 the old system for mobility was removed and the work on the new stations of Piazza Maggiore and Breo started. On December 16, 2006, the modern funicular was launched for the Monregalesi.

Note: The accessibility map of Piazza is shown on the following page.

.....
“... in 1886 the first steam plant capable of connecting Breo and Piazza was built. In 1923 and 1926 it was modified for greater efficiency. In 1941 was modernized by installing powerful engines... in 2006 new funicular was launched...”
.....



Image: Funiculare from Breo to Piazza Mondovi
Source: gettyimages.com

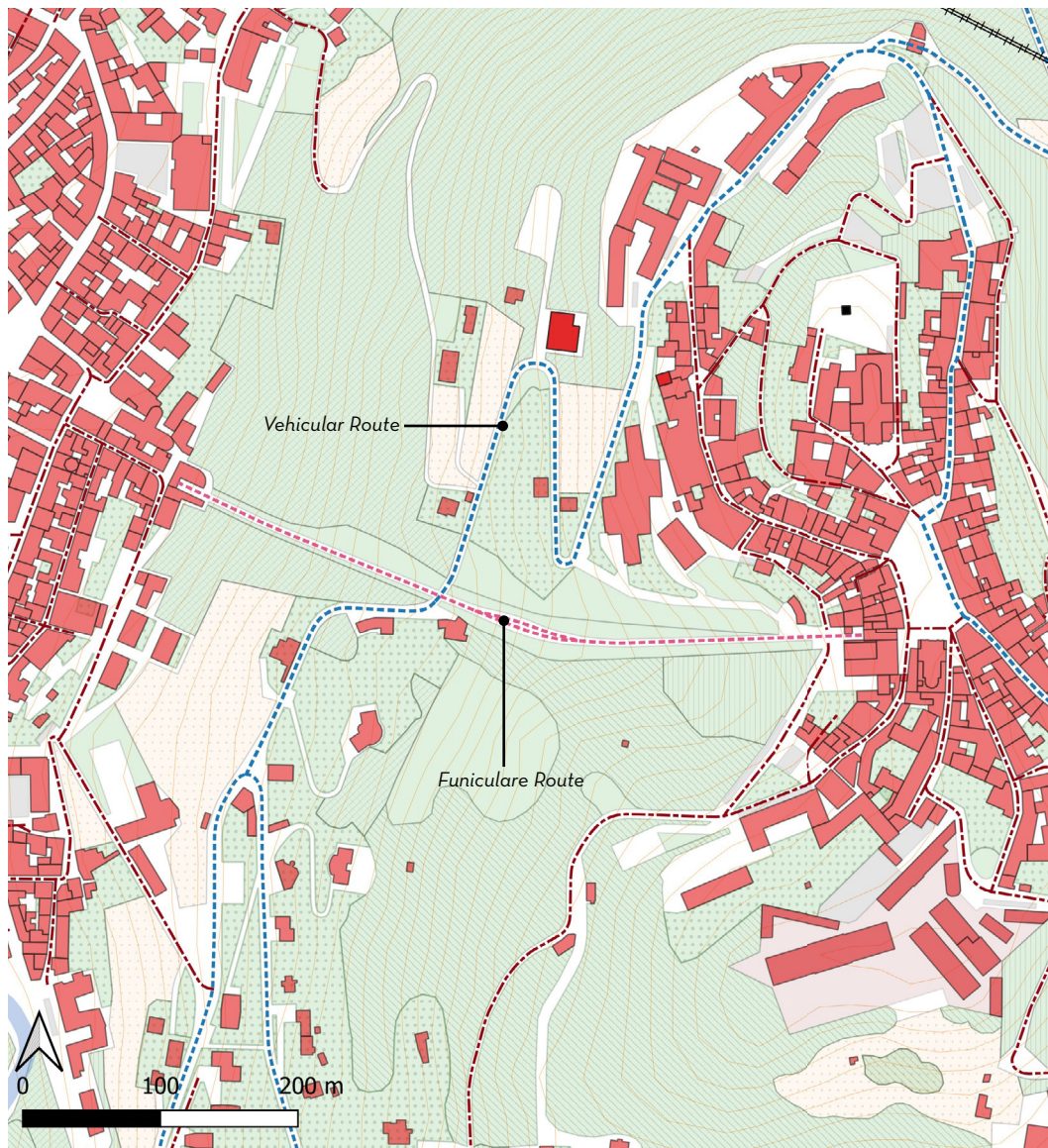


Image: Accessibility Map of Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

6.3 ARCHITECTURAL & CULTURAL HERITAGE OF PIAZZA

A. The Church of the Mission

In the piazza Maggiore, on the southern side lies the Church of the Mission: originally from the Jesuits and dedicated to St. Francis Xavier. The church took its name when it was entrusted to the Missionary Fathers of San Vincenzo Dè Paoli. This church was built between 1665 and 1678 by

the architect Giovenale Boetto, and is known for the frescoes by Andrea Pozzo, one of the most influential painter and architect of the Baroque period. The paintings have been recently restored and are part of the church currently.

.....
“Built between 1663 and 1678 by architect Giovenale Boetto, it is known for the frescoes by Andrea Pozzo - an great painter and architect of Baroque Period.”
.....



Image: Church of Mission, Piazza Mondovi
Source: <https://langhe.net/>

B. The Cathedral of San Donato

On the opposite side of the square in a nearby street connected to piazza Maggiore, you find the cathedral of San Donato. It is the main church of Mondovì, seat of the diocese. The Duomo was designed by Francesco Gallo in 1739 and completed by Benedetto Alfieri and Filippo Nicolis di Robilant twenty years later.

Piazza Mondovi



Image: Cathedral of San Donato, Piazza Mondovi
Source: <https://www.beweb.chiesacattolica.it/cattedrali/cattedrale/508/Chiesa+di+San+Donato>

It presents a monumental portal adorned with statues on the sandstone façade. The cathedral is rich in works of art dating back to the previous churches destined for the diocese. The interior frescoes and paintings, the sculptures, the grandiose organ, the wooden pulpit, the choir of the Chapter and the Chapel of the Suffrage, a true jewel of the Piedmontese Rococo baroque.

Situated on the site of the old church of San Francesco, the cathedral was designed by the architect Francesco Gallo and built between 1743 and 1753. It was completed ten years later with the extension of the chapel of the Santissimo and the Bishops' Crypt, and was consecrated by Mons. Casati on 4 September 1763. The portal of the monumental sandstone façade is surmounted by a statue of Saint Donatus between the figures of Faith and Charity by Giuseppe Quadrone. The cathedral has a Greek cross plan with a nave and two aisles, lengthened in the presbytery and the choir. During the 19th century its sumptuous decora-

tion, enriched with stucco and paintings, was entrusted to the painters Morgari, Hartman, Gounin and Vinaj.

.....
“It is built on the old church of San Francesco, the cathedral was designed by the architect Francesco Gallo and built between 1743 and 1753.”
.....

The side altars of the church of San Donato have wonderful canvases: Saint Andrew by Felice Biella; The Virgin of the Immaculate Conception with Saints Charles and Felix by Mattia Bortoloni; Saint Mary of Mercy with Saints by Domenico Piola; The Passing Away of Saint Joseph by Sebastiano Taricco; The Last Supper by Andrea Vinaj and the list goes on.

The vault of the church of Sant. Donato is painted by Giovenale Bon Giovanni belongs to Piedmontese

Rococo art.

The Renaissance-style wooden choir in the apse is from the charterhouse of Casotto. On the left of the presbytery is the vestibule, with walls inset with marbles from the old cathedral (transformed into a citadel by Emmanuel Philibert), a Renaissance altar with statues of the Virgin and Child between John the Baptist and John the Evangelist, made by Giovanni L. Sormani in 1507; and fragments of a 15th-century fresco depicting the Adoration of Christ, Saints Francis and Clare and an exceptionally delicate Virgin and Child.

The huge chapter room is adorned with fine 17th and 18th-century canvases, a precious silver monstrance and the richly illuminated 15th-century missal with Late Gothic miniatures that belonged to Saint Pius V (Bishop of Mondovì, 1560-66). The 15th-century frescoes from the earlier convent complex can be seen in the vaults of the cloister next to the building.

Image: Belvedere, Piazza Mondovi
Source: By Author

.....
“... the vault painted by
Giovenale Bongiovanni
belongs to Piedmontese
Rococo art ... the church
has wonderful canvases of
great religious and historical
significance ...”
.....

C. The Belvedere and the Park of Time

On the northern tip of the Mondovì



Piazza hill, behind the church of San Donato, one can find the Belvedere Park. The place offers wonderful views to the surrounding valleys and mountains, the city and the Langhe. The gardens are connected by paths to car parks created near the hill.

At the center of the gardens we find the Civic Tower, 29 meters high and symbol of Mondovì. The gardens also house the park of time, which offers a history of measuring time through three paths, in the park and in the city where there are many sundials. Within the discovery route, the gnomonic complex frescoed on the external wall of the Court (formerly the Jesuit College) in the Piazza district. It is a real astronomical observatory with twelve sundials frescoed probably around 1716 by the painter Gian Battista Rocca.

D. The Museum of Ceramics

Mondovì is also known for its ceramics work. To conserve the heritage



of ceramics of the place there is the Museum of Ceramics of Mondovì. The museum is located in the eighteenth-century Palazzo Fauzone in Germagnano. The Museum of the Ceramic of Mondovì houses the permanent set-up of the ceramic collections. The collection is distributed in the 17 rooms of the noble floors of the building.

The production of ceramics has represented the flagship of the Monregalese craftsmanship from the Napoleonic era up to the middle of the 20th century, involving also the centers of the district and giving life

Image: Museum of Ceramic in Piazza Maggiore
Source: cuneo24.it

to an original and recognizable style. The museum allows you to explore the various phases that this production has experienced: a journey into the history of Italian craftsmanship, which entered into crisis after the middle of the last century. The industrial production has in fact modified costumes and lifestyles, marking the progressive crisis of the ceramic factories.

E. The Museum of Printing

It is mentioned that on October 24, 1472, by the typographer Antonio di Mattia from Antwerp and with the financial contribution of the wealthy Baldassarre Cordero, the first book printed in Piedmont was published in Mondovì, only sixteen years after the Gutenberg Bible press. 'Mondovì was at the time one of the most important cities of the duchy of Savoy. The presence of the University began a long tradition in the technique of printing. The printing activity of the Monregalese area still enjoyed great prestige in the Napoleonic era:

Image: Printing Museum
Source: visitjewishitaly.it



a printing house of Mondovì was commissioned to publish the Journal du Département de la Stura, official organ of the French government.' Different machines used for different types of printing can be seen in the museum.

F. Festival, Activities and Events in Mondovì

Some of the most important events and activities that involve the town of Mondovì:

1. International Aerostatic Epiphany Gathering

2. The Carnival of Mondovi, a historical re-enactment in which the town remembers the invasion of the Moors, the new Bela Monregaleisa is elected and there is the traditional float parade.

3. Three Refuges - International Ski Mountaineering Race

4. Spring Fair, an itinerant exhibition in old town centre

5. Spring Meeting - National Meeting of Athletics, an event that over the years has hosted many champions



Image: Balloon Festival in Mondovi
Source: pinterest.com

such as Koura Kaba Fantoni and Andrew Howe Besozzi

6. Football City Districts Tournament - City of Mondovi Trophy, sponsored by the City of Mondovi, the Province of Cuneo and the Piedmont Region

7. Craft Show, in August in the old town centre of Piazza

8. Model Air Show - Annual International Aircraft Exhibition, organized by the Official Aircraft Mondovi Group

9. Feu d'la Madona, fireworks show to celebrate the Virgin of the Vicoforte Sanctuary

10. Peccati di Gola, exposition of culinary excellence

11. Regional Truffle Fair

12. SCCday - The Day of Loyal Sports

13. Fiera del Bue Grasso (culinary beef meat fair in Carrù)

14. Giro delle Valli Monregalesi - Cycling Race

Large number of people come to these events and activities (both from Mondovi and outside).

Piazza Mondovi



Image: Food Festival, Piazza Mondovi
Source: provinciagrande.it

6.4 URBAN BUILT FABRIC OF MONDOVI PIAZZA

The built fabric in Mondovi Piazza comprises of buildings ranging from residential, commercial, institutional, religious, public square, leisure, government to abandoned buildings. Without any specific zoning, they are intertwined into a single built texture.

The piazza Maggiore (in the center of Mondovi Piazza) acts as a magnet to the locals as well as tourists who visit Mondovi. Encapsulated by cafe, bars, restaurants, and other major buildings it attracts people for various reasons. The number of people increase in the place in case of special events and festivals. Restaurants around the piazza Maggiore are major components in bringing people to the place.

.....
“Without any specific zoning the built fabric and

functions are intertwined into a single built texture.”
.....

In the following pages built fabric is classified and shown in different categories in order to understand the built fabric. It also includes services which exist currently in the piazza of Mondovi.

A. Public Buildings

There are a good number of public buildings in Mondovi Piazza when compared to the total built area. This is the result of the fact that the Mondovi has been a major/central place for administrative and religious offices. Also, the Mondovi and surrounding areas were center to political power and subsequent historical and political events. And thus had been instrumental history of Piazza.

The buildings which exist in Mondovi Piazza mostly date back to 16th and

Piazza Mondovi

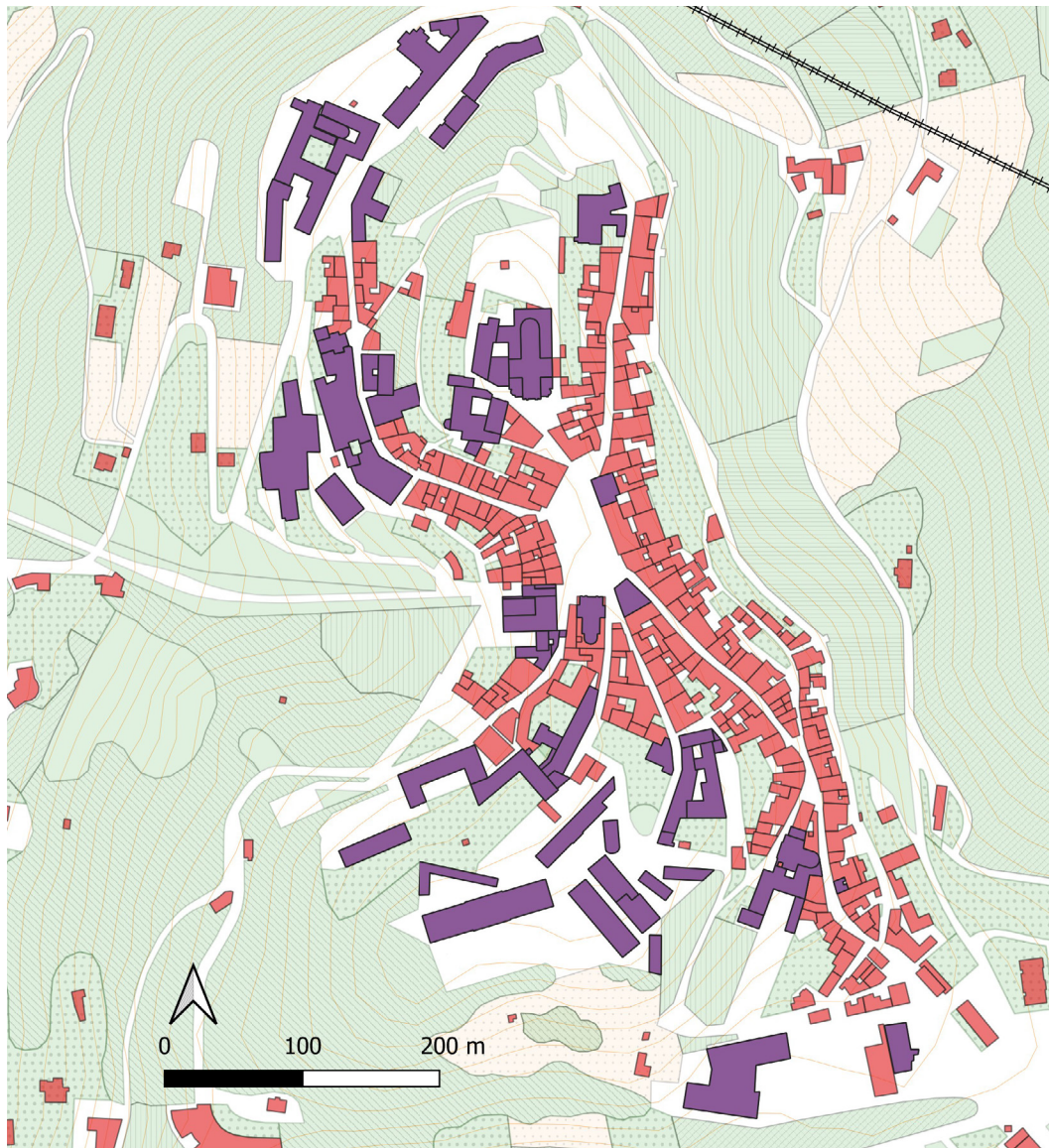


Image: Map of Public Buildings in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

18th century.

.....
“A substantial number of public buildings are located in piazza due to its rich political and religious background and date back to 16th and 18th century.”
.....

These buildings have gone through multiple changes. Both in functions and edifice. But mostly they are appropriated for communal and social purposes. The map shows the prominent public buildings in Mondovi Piazza. Remember that the public buildings here in the section refers to and thus includes institutional buildings, religious buildings, services etc. accessed and meant for public. These are further explained here in the section separately in respective category.

B. Religious Buildings

Mondovi Piazza comprises of build-

ings which has had served for church. The buildings are dispersed from southern part of hill to northern tip. Mostly opened for the public, all of the buildings serve communal function. In the main Piazza on southern side, exists the Church of San Francesco Saverio (della Missione). It was built in 1665 and 1678 by the architect Giovenale Boetto while its pictorial decorations are done by the great Andrea Pozzo. On its opposite side in the street exists the historical Cathedral of San Donato. It was designed by the architect Francesco Gallo and built between 1743 and 1753.

On the opposite side of the Cathedral of San Donato stands the ‘Confraternity of Santa Croce’. An excellent example of Piedmontese Baroque, it is work of the famous architect Bernardo Vittone.

.....
“The religious buildings include mostly churches (constructed earlier) and a Jewish synagogue.”
.....

Piazza Mondovi

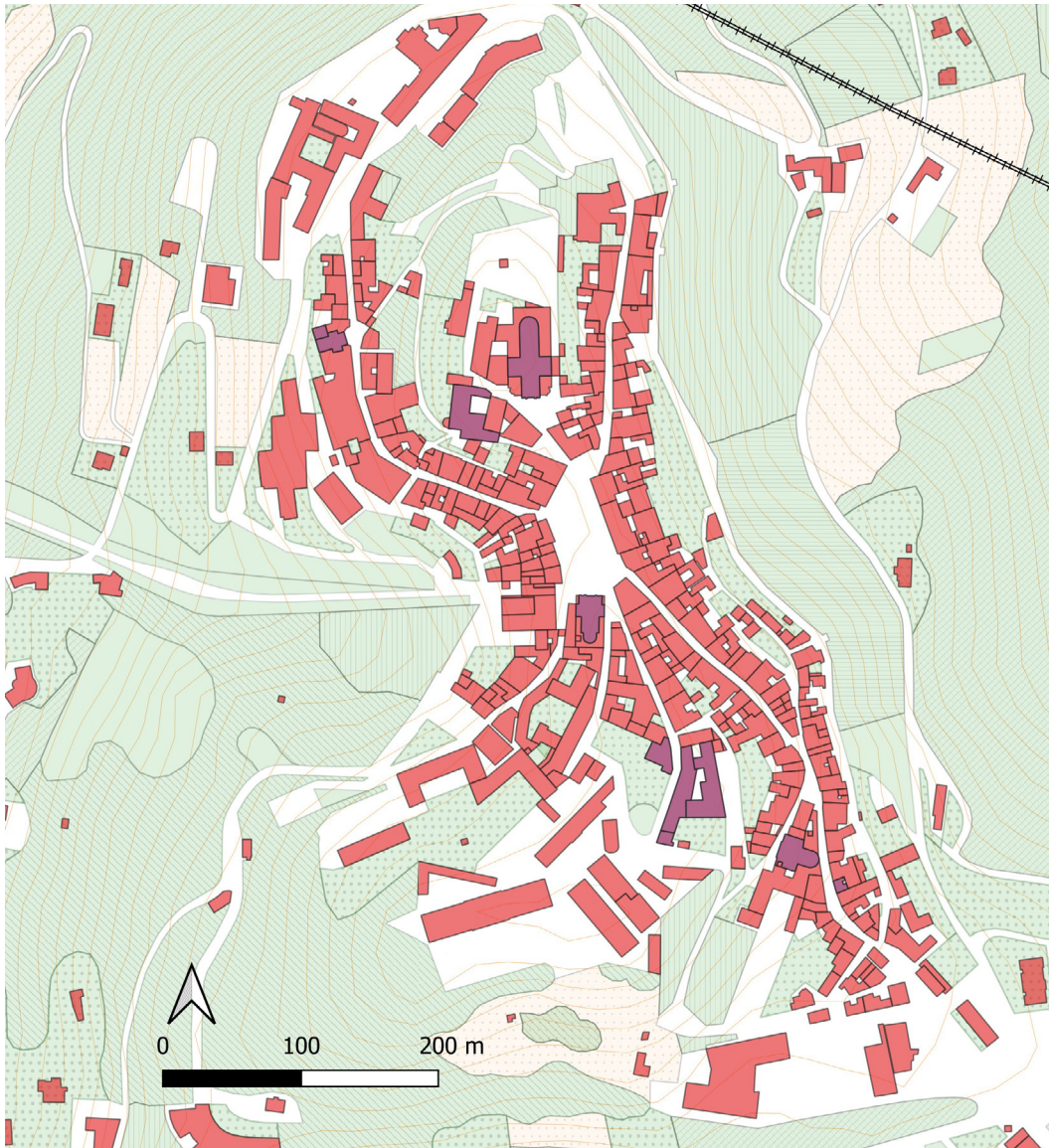


Image: Map of Religious Buildings in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

In addition to this, a small synagogue is located on the backside of 'Museum Civico della Stampa'. In Via Vico, 65 it is located on the last floor of a residential building which is not visible from the road. On way to Caserma Galliano from Piazza Maggiore through via Giovanni Giolitti (via Giovanni Giolitti, 6, Mondovi), there is 'Opera Regina Montis Regalis' which is a catholic church. Furthermore, 'Diocesi di Mondovi' is also present near abandoned barrack of Galliano.

C. Educational Buildings

Mondovi being the first place to print a book in 15th century has had been source of education and knowledge. In fact, University of Turin had a seat in Mondovi. Primarily, it housed students in boarding schools controlled by religious authorities. But now other forms of schools have emerged too according to current needs. On the south side of the Piazza is, Vasco Beccaria Govone High School. In 2012/2013 the original institutes

were merged into signal high school. They were Linguistic High School, High School of Human Sciences and High School of Human Science, Economics and Social. 'IIS Giolitti Belisario' is located down the same line which provides professional education in services for food, wine and hotel hospitality. It offers technical skills in the aforesaid fields. Also, the G. Baruffi Technical school on the same road provides technical education in administration, finance and marketing. Also construction, environment, agriculture, rural development etc. are part of its curriculum. There exists a kindergarden as well. F.Gallo lower secondary school located near Caserma Galliano. These educational institutes are inserted into existing buildings commonly.

D. Civil Buildings

Civic buildings are used by government, council, crown for administrative, recreation, offices or other purposes. Around the Piazza Maggiore exist some of the historical civ-

Piazza Mondovi

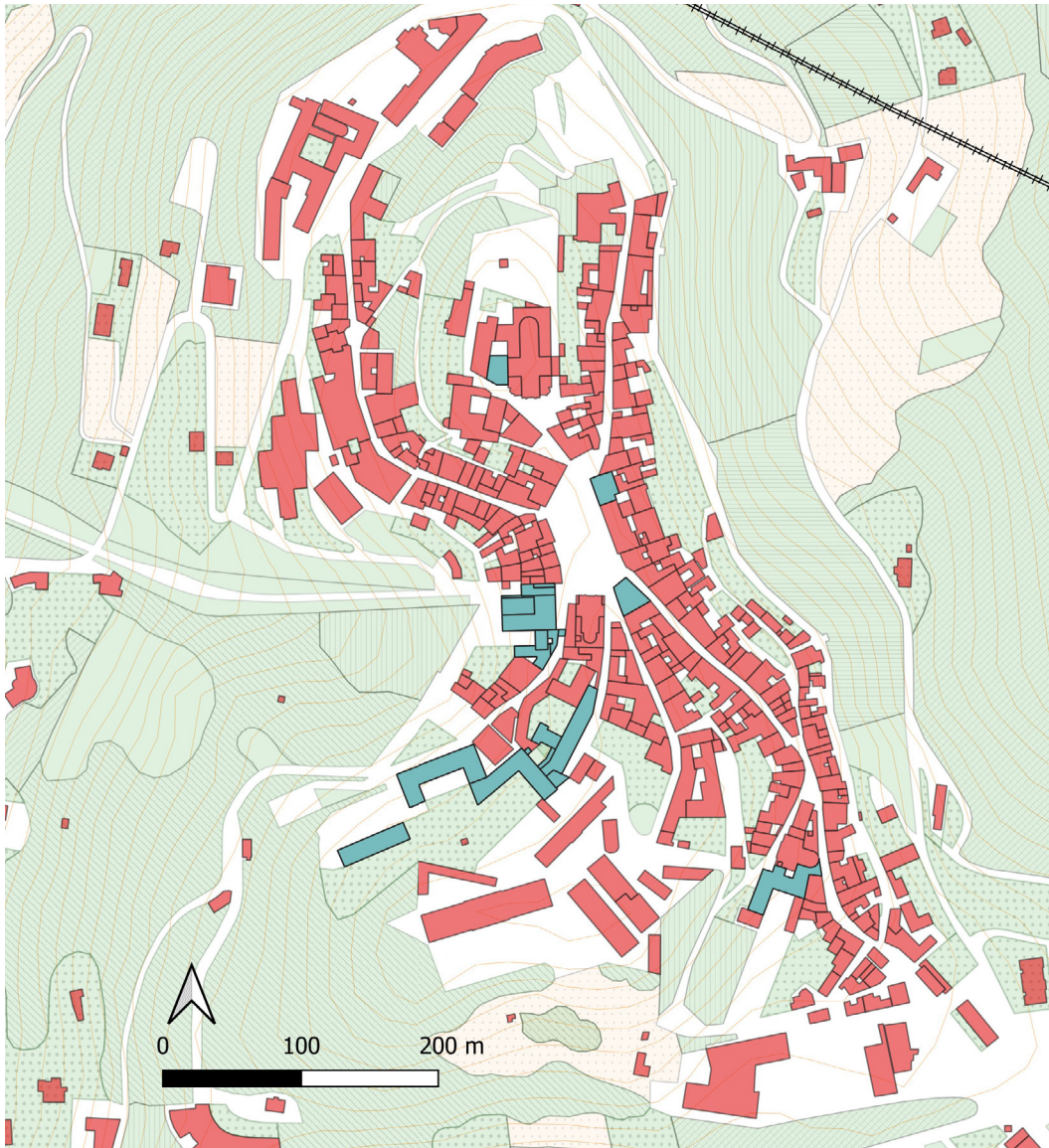


Image: Map of Civil Buildings in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

ic buildings which also depicts the location of the administrative power, as the initial settlements started to emerge on the piazza in medieval age. Among these civic building, the first in Palazzo dei Bressani which is located next to the Piazza Maggiore. A palace overlooking the piazza. It dates back to 13th century and was a medieval palace of the family of the first lords of Mondovi. The Bressano, the progenitor of the family, appeared in the scene in the early 1200s and with considerable sums of money managed to earn a primary role in society. The Palazzo del Governatore (The Governor's building) like other buildings on the square, it is characterized by porticos with pointed arches and by terracotta moldings at the entrances of the upper levels. The Governor's building was once the seat of the Savoy royal power. From 15th century, its façade was painted with emblems and various coats of arms, in particular those from the families which governed the city. In addition to this, Ceramic Museum which is located in Palazzo Fauzone di Germagnano, Printing

Museum are located in piazza Maggiore and northern side respectively. The civic library also stands next to Cathedral San Donato. Not to mention of 14th century civic tower open for public.

6.5 PUBLIC SERVICES

A. Transportation and Vehicular Parking

There are primarily two ways to access the Piazza of Mondovi. First is the funicular and the second is the public bus. With the help funicular one can go from the Breo (part of Mondovi on low altitude) to Piazza Maggiore. It takes hardly 5-8 minutes to reach the Piazza with funicular.

While with the public bus one can take normal asphalt road way. The bus can be taken from the railway station of Mondovi. With bus one can see the panoramic views and different areas of the place enroute to Piazza. There are also routes (short-cuts) to reach Piazza by foot from

Piazza Mondovi

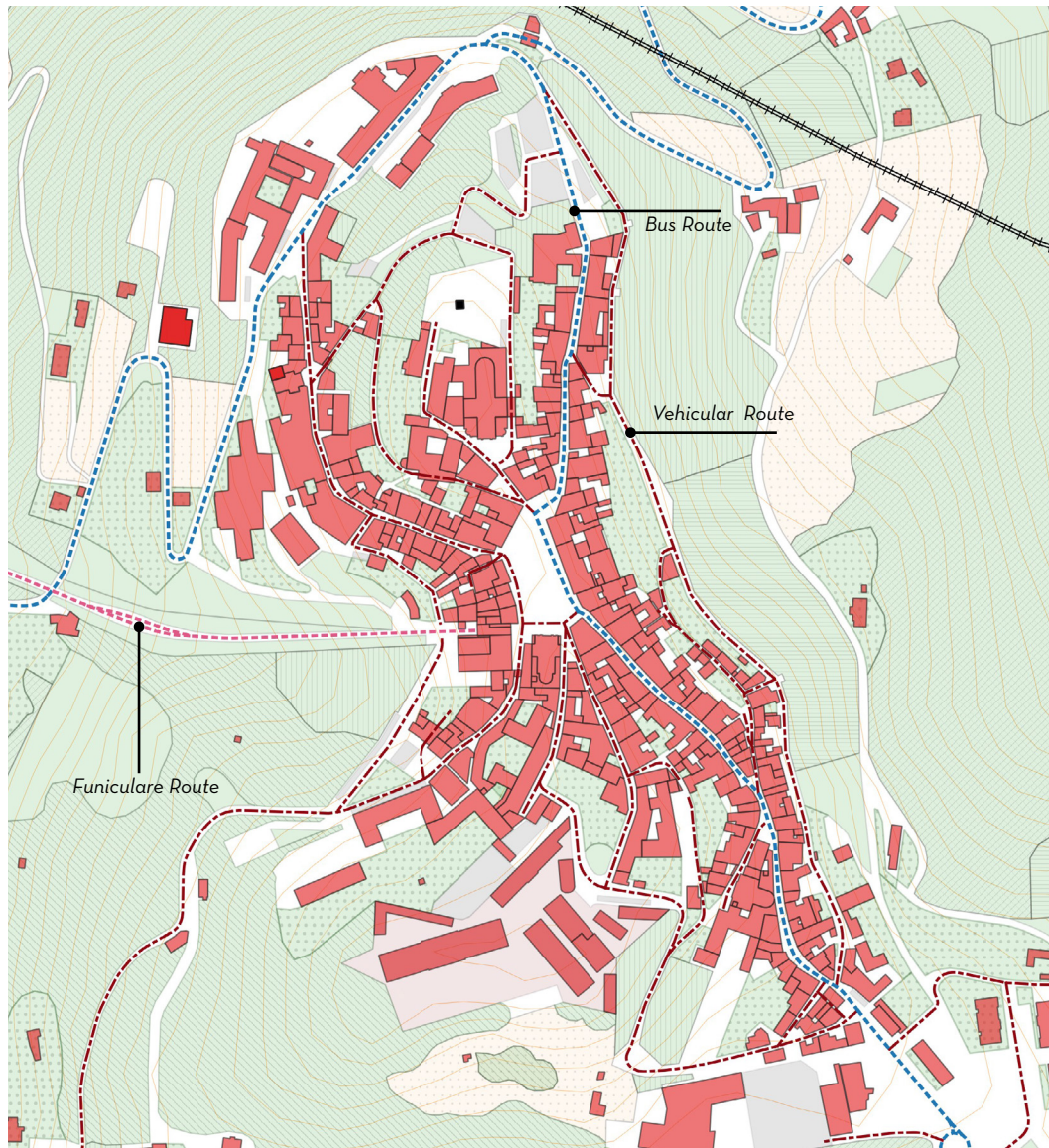


Image: Map of Public Services in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

Breo. People also use bicycles but due to steepness of the hill it is not too common. Also, the route lacks separate bicycle lanes which is another obstacle.

.....

“There are primarily two ways to access the Piazza of Mondovi. The funicular and the public bus. With the help funicular one can go from the Breo (part of Mondovi on low altitude) to Piazza Maggiore. It takes hardly 5-8 minutes to reach the Piazza with funicular.”

.....

The routes are highlighted in the map shown above. The blue line shows the bus route from lower part of Mondovi to Piazza and onwards. While the violet line depicts the route of funicular. Dashed brown line is routes used by people for vehicles.

B. Vehicular Parking

Vehicular parking in the Modovi Piazza has been an issue. But the municipality has allocated the spaces for vehicular parking in different areas of the Mondovi Piazza. According to a document issued by the municipality as a guideline for parking in 2010, the area has been divided (from southern tip of the Piazza to northern) into seven different zones via colors. In the whole area, there are primarily two types of parkings.

The first type of parking is allocated in outdoor areas is for nearby residents and authorized personal. They are highlighted in yellow color in the map. While the second is, the one permitted for all. Both types of parkings are scattered through the place but the number of second category is greater in number. (The black areas also highlight parking areas and the data is taken from openstreet map.)

Most of these facilities are located around the residences and commu-

Piazza Mondovi

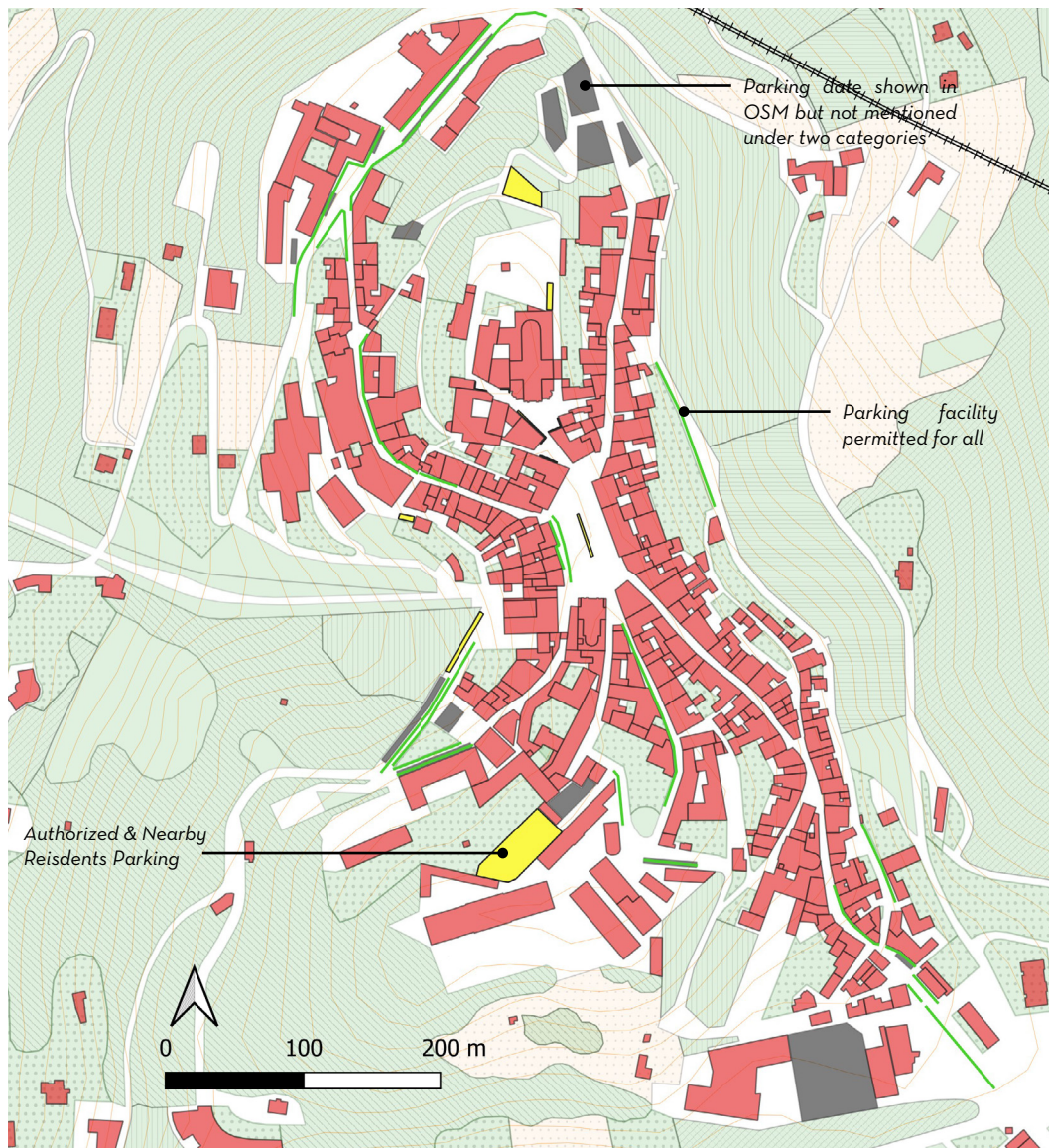


Image: Map of Vehicular Parking in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)

nal/local amenities.

.....
“First category of parking is allocated in outdoor areas is for nearby residents and authorized personal. (in yellow color). Second is, the one permitted for all. Both types of parkings are scattered through the place.”
.....

C. Commercial Area and Guest Houses

There size of the commercial area in Mondovi Piazza is relatively small. Shops can be counted on fingertips. The shops are mostly located in Piazza Maggiore facing towards it. It comprises of Restaurants on the perimeter of the Piazza Maggiore (with eating places in Piazza also), pharmacy shops, post office, tabbachi, Bar, MoneyGram, Pizzera etc. While

some other shops like general store, butcher shop and a take away are present in ‘via Vico’.

The area has also couple of facilities for tourist’s. The guest houses, apartments and ‘Airbnb’ facilities are scattered but predominantly near Piazza Maggiore. These places provide stay and bed facilities to tourists who come to visit Mondovi, taste its gastronomy and enjoy beautiful panoramic views in different seasons. The historical buildings (like churches and museums) are also source of attraction for tourists.

.....
“... commercial amenities are in small scale in Mondovi Piazza. Shops can be counted on fingertips. The shops are mostly located in Piazza Maggiore facing towards it.”
.....

Piazza Mondovi

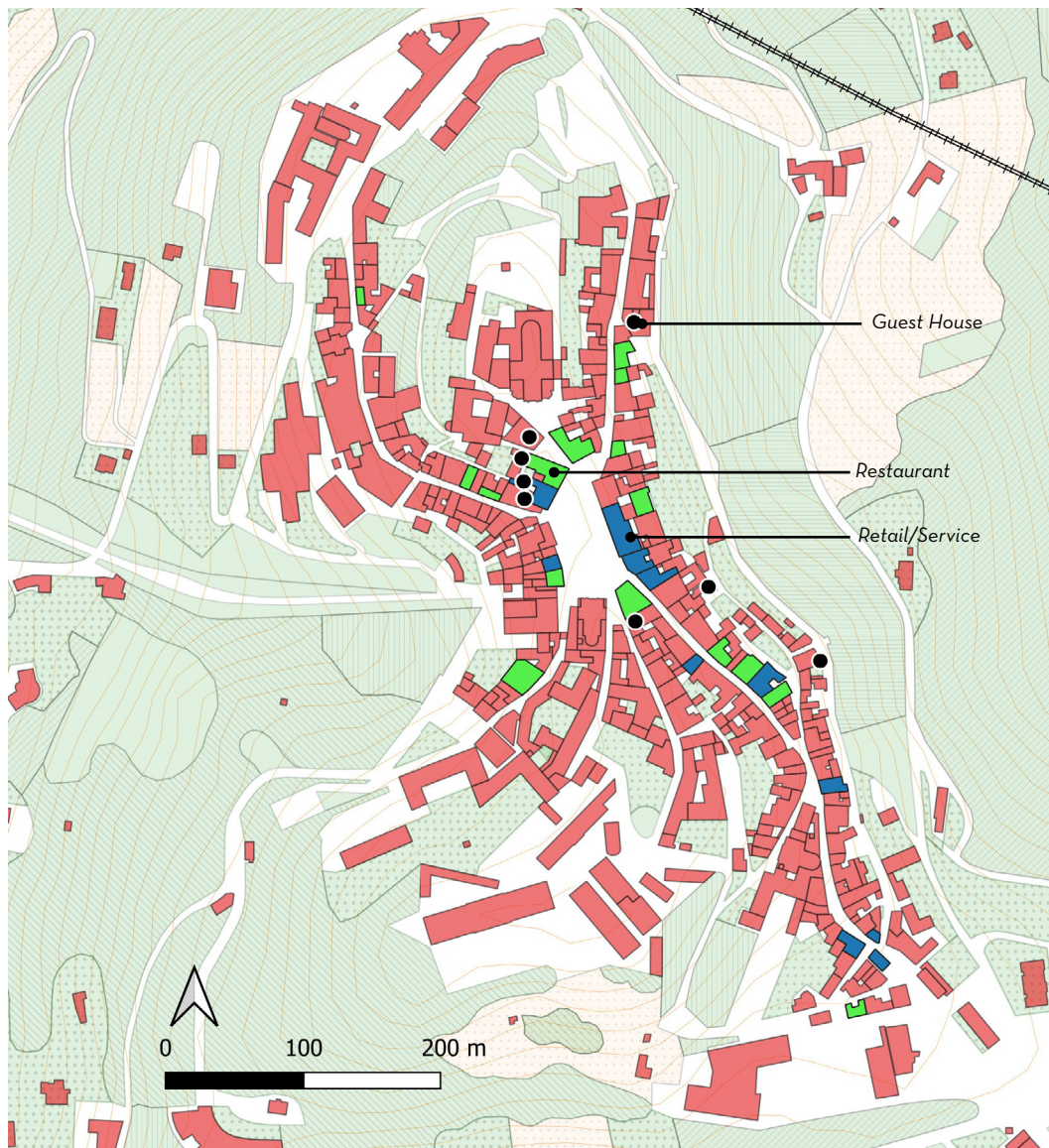


Image: Map of Commercial Buildings in Mondovi Piazza
Source: GIS Software by Author (data from Openstreet-map)



Image: Map of Mondovi Piazza (Satellite View)
Source: Geoportale Piemonte

Piazza Mondovi

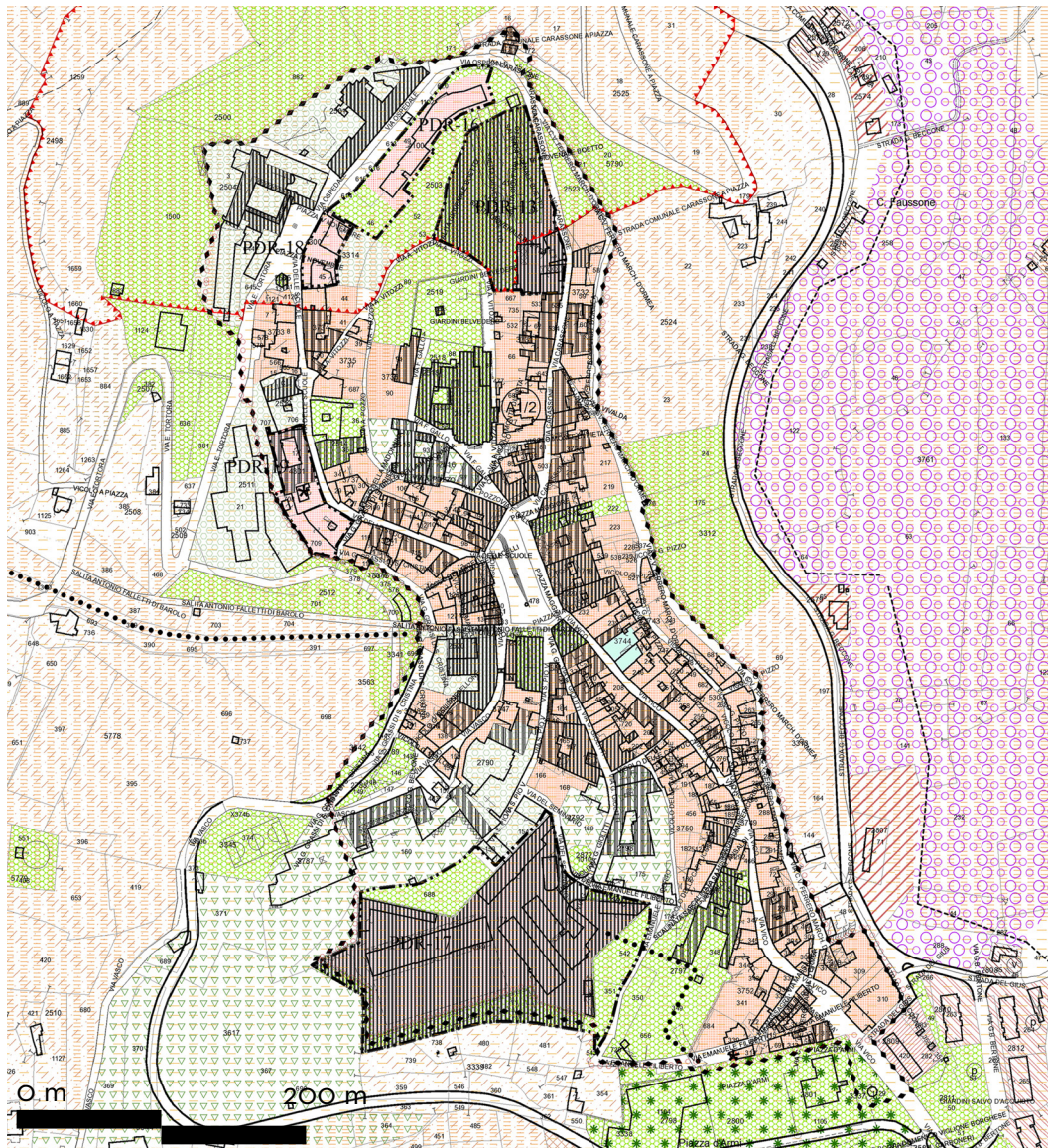


Image: Master Plan of Mondovi Piazza

Source: Comune di Mondovi

PLAN PIAZZA MONDOVI

Legenda

Cartografia catastale (Aggiornamento gennaio 2022)

Confine di mappa

Fabbricati

Particelle

Strade

Acque

Numeri particelle

Termini comunali

Termini particolare

Gratiti di apprensione

Punto topografico

Punto fiduciario

Segno convenzionale di unione

Flusso scorrimento acque

Rapporti particelle

Linee varie

Piano Regolatore - Variante Parziale n.27 - Planimetria di progetto - Territorio

DESTINAZIONI RESIDENZIALI

I.U.A. - Perimetrazione della zona I.U.A. (Insediamenti urbani aventi carattere ambientale), (art.26 NTA)

BR.I - Zona residenziale con capacità edificatoria esaurita (art.27 NTA)

Edificio per i quali è prescritta la demolizione

BR.IV - Zona residenziale con capacità edificatoria esaurita compresa nel Piano Ampliamento "Rigotti" (art.27 h)

BR.II - Zona residenziale consolidata di impianto unitario (art.28 NTA)

BR.II.p - Insediamenti di edilizia pubblica

BR.III - Zona residenziale parzialmente consolidata (art.29 NTA)

BR.III.c - Aree subordinate a concessione convenzionata

BR.IV - Zona residenziale consolidata di impianto rurale (art.30 NTA)

BR.IV.v - In fascia di rispetto stradale

BR.IV.i - Sul territorio

BR.IV.e - Entro il perimetro del centro abitato

BR.V - Zona residenziale collinare in ambito urbano (art.31 NTA)

VP - Zona destinata a verde privato in ambito urbano (art.32 NTA)

CR.I - Zona residenziale di completamento edilizio (art.33 NTA)

CR.II.c - Aree subordinate a concessione convenzionata

CR.II - Zona residenziale di completamento urbanistico

CR.III.c - Aree subordinate a concessione convenzionata

CR.III - Zona residenziale di nuovo impianto (art.35 NTA)

TR - Zona di trasformazione a prevalente destinazione residenziale (art.36 NTA)

ATTIVITA' ECONOMICHE

BC - Zona destinata ad attività terziarie e commerciali in ambito urbano consolidato (art.37 NTA)

BM - Zona destinata ad attività miste, artigianali e commerciali esistenti (art.38 NTA)

BI - Zona destinata ad attività artigianali e produttive esistenti (art.39 NTA)

IC - Zona destinata alla distribuzione di carburanti (art.40 NTA)

CC - Zona destinata ad attività terziarie e commerciali di nuovo impianto (art.41 NTA)

CCO - Zona speciale destinata ad attività ricettive e commerciali di nuovo impianto (art.41 NTA)

CM - Zona destinata ad attività miste artigianali e commerciali di nuovo impianto (art.42 NTA)

DI - Zona destinata ad attività produttive di nuovo impianto (art.43 NTA)

DC - Zona destinata ad attività estrattive (art.44 NTA)

TT - Zona di trasformazione a prevalente destinazione terziario - commerciale (art.45 NTA)

TP - Zona destinata ad attività (pubbliche, private o enti) di interesse collettivo (art.46 NTA)

TPic - Attrezzature per la collettività, istruzione, ospitalità

TPis - Attrezzature per la fornitura di servizi (Enel, Vcl, Italgas, Telecom...)

TPis - Attrezzature sportive per il tempo libero e il gioco

TPi - Attrezzature universitarie e per l'istruzione

TPi - Aree riservate alle funzioni ferroviarie in attività

TPi - Aree riservate alle funzioni ferroviarie disattivate

ATTIVITA' AGRICOLE

EE - Zona agricola (art.47 NTA)

EE3a1 - Edifici in ambito rurale compresi in classe di pericolosità geomorfologica III a1

EE3a - Aree agricole di salvaguardia ambientale

EP - Zona agricola per aziende produttive agricole o floricole esistenti (art.48 NTA)

EEInt - Aree in cui è consentito l'impianto di allevamenti intensivi (art.47 NTA)

SERVIZI PUBBLICI

SP.I - Zona destinata a servizi sociali ed attrezzature a livello comunale - art. 21 l.u.r. 56/77 (art.49 NTA)

SP.II - Aree per l'istruzione

SP.III - Aree per attrezzature di interesse comune

SP.IV - Aree per spazi pubblici, a parco, per l'arredo urbano, il gioco e lo sport

SP.IV - Aree per parcheggi pubblici

SP.IVp - Aree per servizi produttivi

SP.III - Zona destinata a servizi sociali ed attrezzature di interesse generale - art. 22 l.u.r. 56/77 (art.50 NTA)

SP.IIIa - Aree per attrezzature di interesse collettivo

SP.IIIb - Aree per attrezzature relative all'istruzione superiore dell'obbligo

SP.IIIc - Aree per attrezzature sociali, sanitarie ed ospedaliere

SP.IIIp - Aree per parchi pubblici, urbani e compensativi

SP.IIIm - Aree per attrezzature militari

SP.IIIv - Aree per lo svago e lo sport

SINUSOLOGIE

Numerazione delle aree urbanistiche

Numerazione e classificazione delle aree soggette a Strumento Urbanistico Esecutivo

Perimetrazione delle aree sottoposte ad attuazione mediante Strumento Urbanistico Esecutivo

Filo fisso di edificazione

Viabilità in progetto prescritta

Viabilità in progetto proposta

Piste ciclabili e percorsi pedonali

Collegamenti (funicolari, passerella scalinate...)

Dispositivi

Viale alterato prescritto

ZONE DI INSEDIAMENTO COMMERCIALE

Addensamenti commerciali A1

Addensamenti commerciali A3

Addensamenti commerciali A4

Localizzazioni commerciali L1

Localizzazioni commerciali L2

VINCOLI GEOMORFOLOGICI

1 - Aree a pericolosità geomorfologica minima o nulla

2 - Aree a pericolosità geomorfologica moderata

3a1, 3a2, 3b - Aree a pericolosità geomorfologica da elevata a molto elevata

3c - Aree a pericolosità geomorfologica molto elevata con divieto di qualsiasi utilizzazione urbanistica

ALTRI VINCOLI

Vincolo idrogeologico (R.D. 30/12/1923 n.3267)

Perimetrazione ai sensi della L. 445 del 9/7/1906 (Aree interne dalle frecce)

Edifici vincolati ai sensi della legge 10/9/59

Edifici segnalati ai sensi dell'art. 24 l.u.r. 56/77 (b) -

a - di carattere storico-artistico

b - di carattere storico-documentario

Aree vincolate ai sensi della legge 14/9/73 (c) -

riserva naturale speciale dell'Oasi Crave-Morizzo

Fascia di rispetto stradali

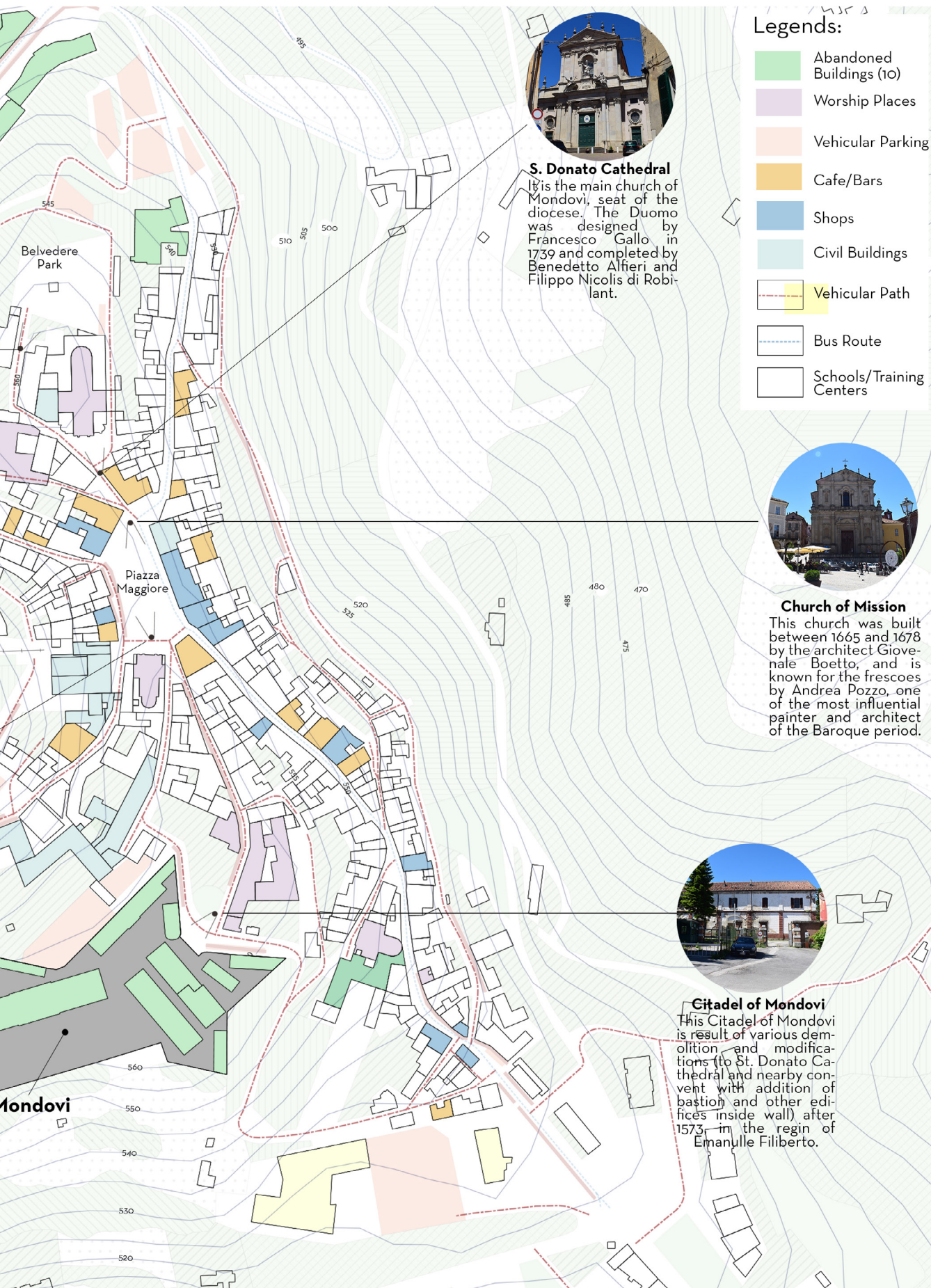
Fascia di rispetto dei corsi d'acqua

Delimitazione del centro abitato

Image: Legends of Master Plan of Mondovi Piazza

Source: Comune di Mondovi





6.6 MORPHOLOGY OF PIAZZA

The shape and morphology of the piazza of Mondovi is like a distorted ellipse which stretches from northern side to southern side on an elevated hill, with a depression in the middle. The big courtyard type public space in the middle of the the Mondovi Piazza is 'Piazza Maggiore'. It is surrounded by the buildings, majority of them with floor number greater than three. The buildings which face the Piazza Maggiore on the ground floor have mostly commercial use. The central space caters for various events especially public and cultural events mentioned in the previous chapters. Apart from this, it connects the piazza to lower part of Mondovi i.e. Breo, as the funicolare's one end is just next to Piazza Maggiore.

On the northern side of piazza Maggiore, exists the belvedere park. It is a large open and green space on the back side of cathedral St. Donato.

It has the historical tower as well as some parking facilities for vehicles. The road next to the park leads to Carassone, therefore in a way it has special relationship with it. Apart from that, the 'Porta di Carassone' is located just next to Belvedere Park.

On the southern tip of Mondovi piazza is, the historical citadel area. It comprises of the historical rudiments of the church, the edifices of the barracks. This part of the piazza has residential buildings as well. The Museum of Print in piazza is also located on this side. Piazza d'Armi is located on substantially lower altitude as compared to citadel.....

“...piazza Mondovi can be divided into three major zones; first being the Piazza Maggiore, second is Belvedere Park while third on the southern part is the historical citadel...”.....

These three major parts/zones of

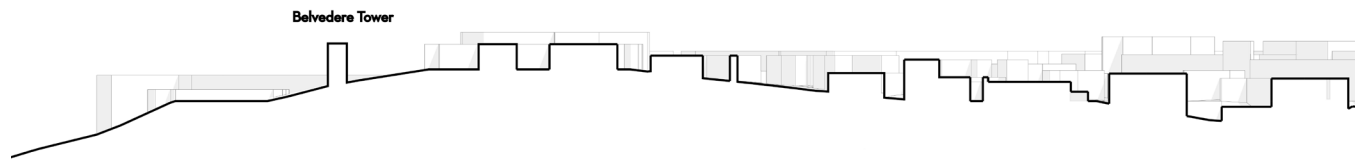


Image: Map of Mondovi Piazza (Major Parts)
Source: By author from GIS (information taken from
Open Street Map)

Piazza Mondovi

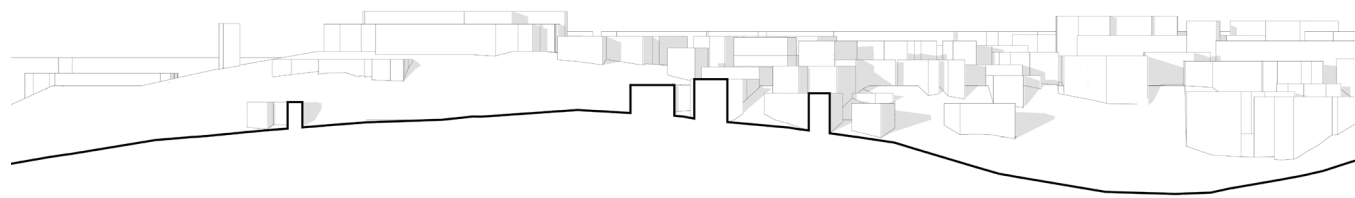
SECTION AA

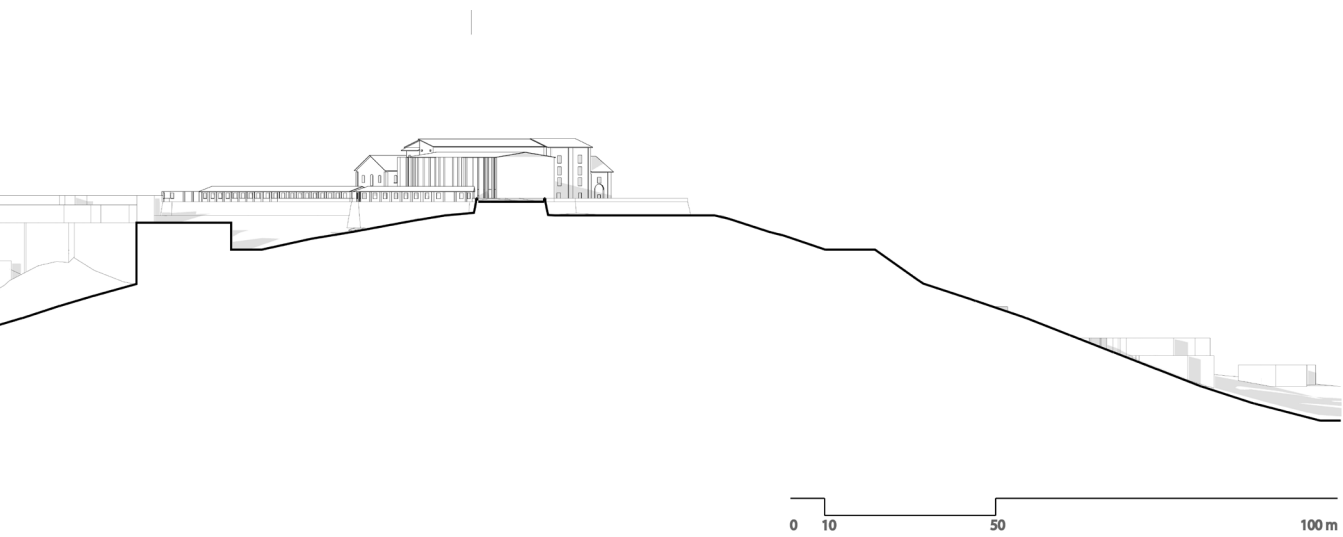
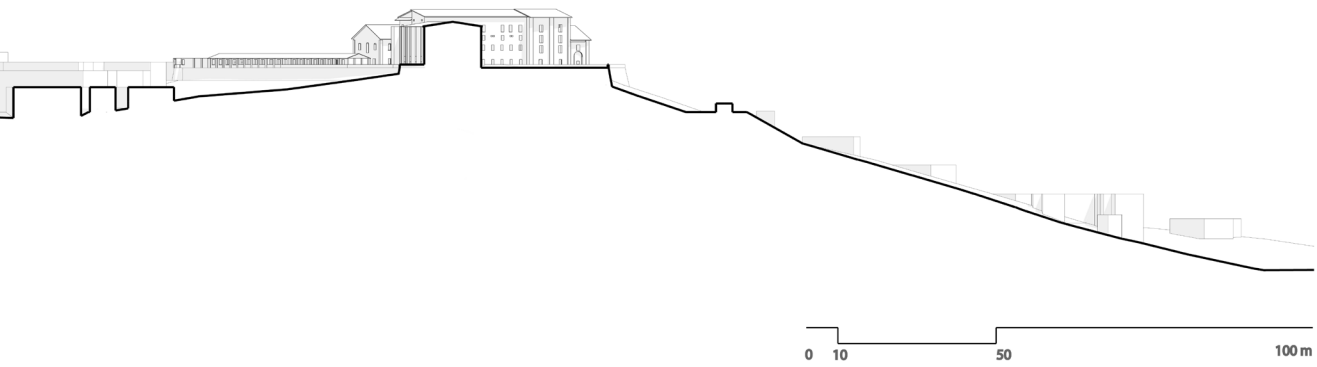
Refer to Map of Mondovi Piazza - Major Parts



SECTION BB

Refer to Map of Mondovi Piazza - Major Parts

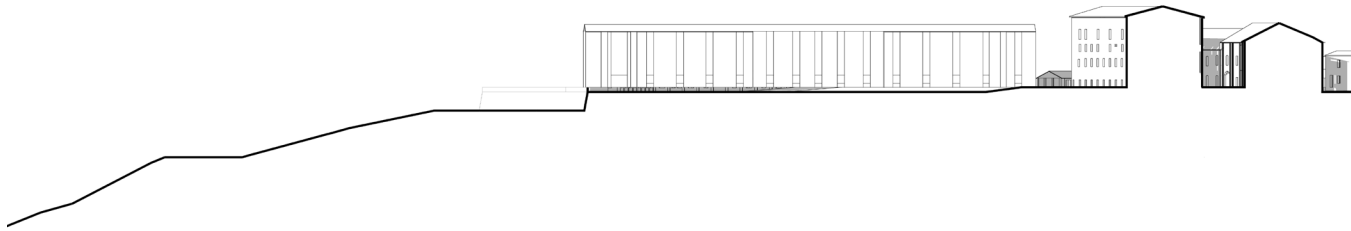




Piazza Mondovi

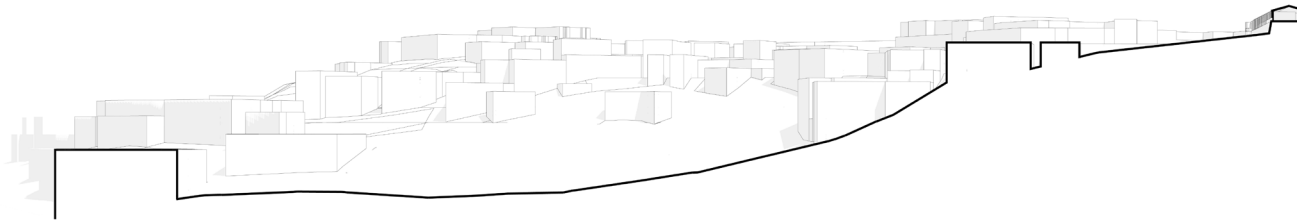
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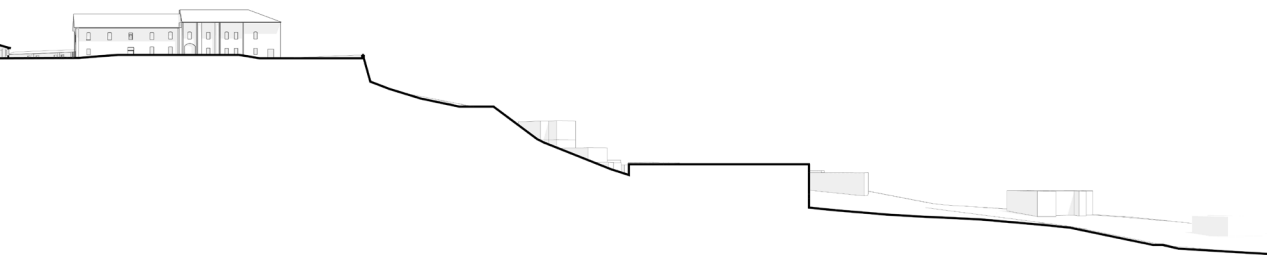
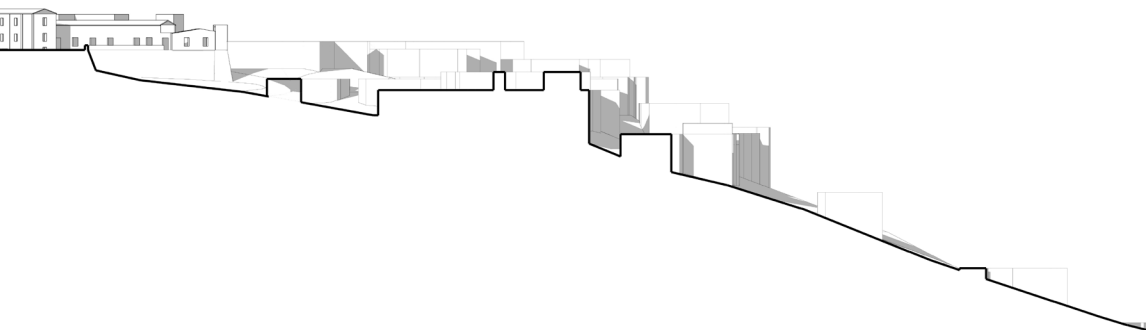
Refer to Map of Mondovi Piazza - Major Parts



SECTION DD

Refer to Map of Mondovi Piazza - Major Parts





the historical piazza define its character (though others are equally important).

6.7 CONNECTIONS OF MONDOVI PIAZZA

The road connections (shown in map) highlighted in the red color are primarily the vehicular but usable to pedestrian also on its edges. These routes are used by the locals as well as a limited number of tourists to reach different parts of the piazza. The primary vehicular road which connects piazza and Breo is located on the northern tip. While road to Carassone also leads from the same area.

Piazza is connected to Vicoforte and other regions located on the northern side of piazza. A second road which connects piazza to Breo is located on the southern side. Most of the routes funnel into the Piazza Maggiore thus giving it a specific importance, especially making it like a

nucleus of the whole network. Along these routes are parking areas for automobiles (discussed earlier).

.....

“...piazza mondovi is connected other areas of Mondovi from the southern, northern and middle with funicular and road networks. These routes funnel into the piazza Maggiore thus making it a nucleus of the place ...”
.....

These routes help in vehicular and pedestrian mobility to reach different parts of the piazza thus weaving into a single built fabric.

It is worth mentioning here that the frequency of usage of these route by vehicles varies. Not all of them are used at equal intensity. The main route from Breo to Piazza is used frequently by vehicles.



Image: Road Connectivity in Mondovi Piazza
Source: By author from GIS (information taken from Open Street Map)

Chapter 07

Issues, Needs & Urban Strategy

7.1 OVERVIEW

This chapter of the thesis discusses different needs and highlights major issues to be tackled in Mondovi Piazza. These issues are then dealt in the design and programming phase (part 4 of thesis) under the recovery of the citadel. The section involves the major observations taken from the site and its context. These observations not only relate to the social life or public life of piazza but also relate to the economic, cultural, historical and practical aspects.

7.2 ISSUES

A. Agglomeration of Abandoned Assets

As it has been mentioned earlier in the chapters, there are a number of abandoned spaces in Mondovi as well as in piazza which are scattered on the hill as craters, waiting for their

destiny to be written by any author. These abandoned assets, though might be the result of various challenges. But the impact of the phenomenon is severe i.e. the Mondovi Piazza is gradually losing the vibrant social life. Urban spaces which must advocate 'centripetality' (attracting people towards themselves) instead becoming centrifugal (repulsive) due to their dead character. Social craters are popping out on the piazza leading to an environment which is non-conducive for whole community. (Refer to Map showing abandoned assets in Piazza Mondovi)

.....

"... urban spaces which must advocate 'centripetality' (attracting people towards themselves) instead becoming centrifugal (repulsive) thus becoming dead. Social craters are popping out causing a non-conducive environment..."

.....

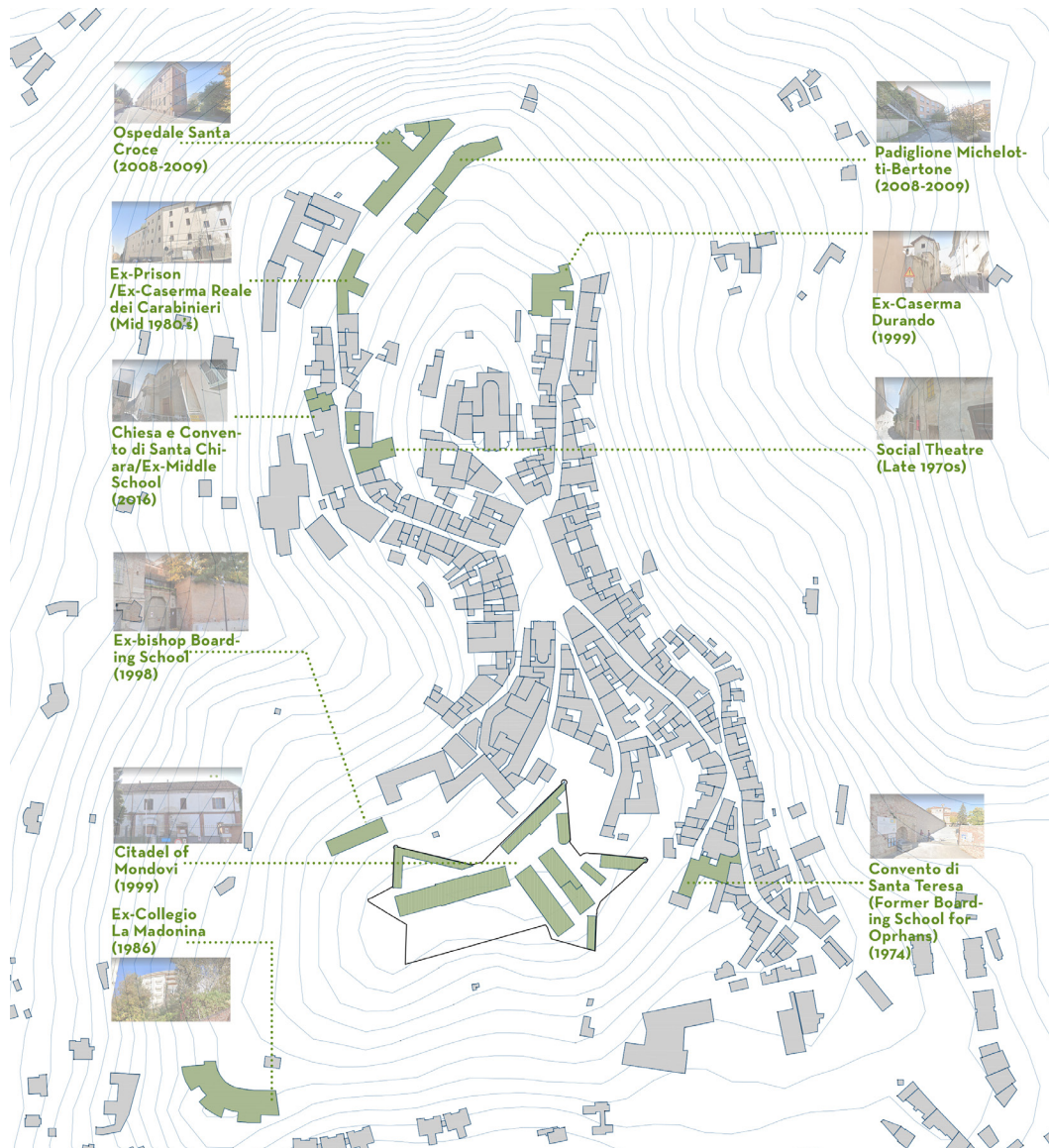


Image: Map of Abandoned Buildings in Mondovì Piazza
Source: Map and Image by Author with GIS Software
(data from Openstreetmap), Comune di Mondovì

Out of 20 abandoned assets located in Mondovi, 09 of them are located in Mondovi Piazza. The quantity of these disposed assets alludes towards increasing social craters.

While on the other hand, efforts had been made to renovate and restore disposed assets with variety of functions and programs. It is encouraging to see these previously deteriorated (or abandoned) spaces with a renewed life which serve the community and their daily needs.

Such patterns of renewal can be replicated in other parts which are currently inactive thus creating a network (circuit) of active spaces in Piazza Mondovi, for the maximum benefit of the community and vibrant social life.

B. Sparse Artisan Economy & Commerce

The place which once (particularly 18th century) used to be a place

of silk production, furnace, spinning mills, manufacturing of fabric and cotton has almost lost its production glory. The pasta factories, paper mills, match factories, tower clocks of 19th and 20th century has vanished and has become part of its history. The most notable production of ceramic and metal is thriving in the industrial zone of Mondovi on the outskirts.

.....
“... the issue of personalized, hand made, small-scale production which helps greatly in job creation, economic growth and cultural preservation is fading from the streets of the Piazza...”
.....

The retail market is significant in the lower part (Breo) of the Mondovi while up on the hill in Piazza it is small. Limited number of retail shops are not helpful in facilitating the small scale production and other business-

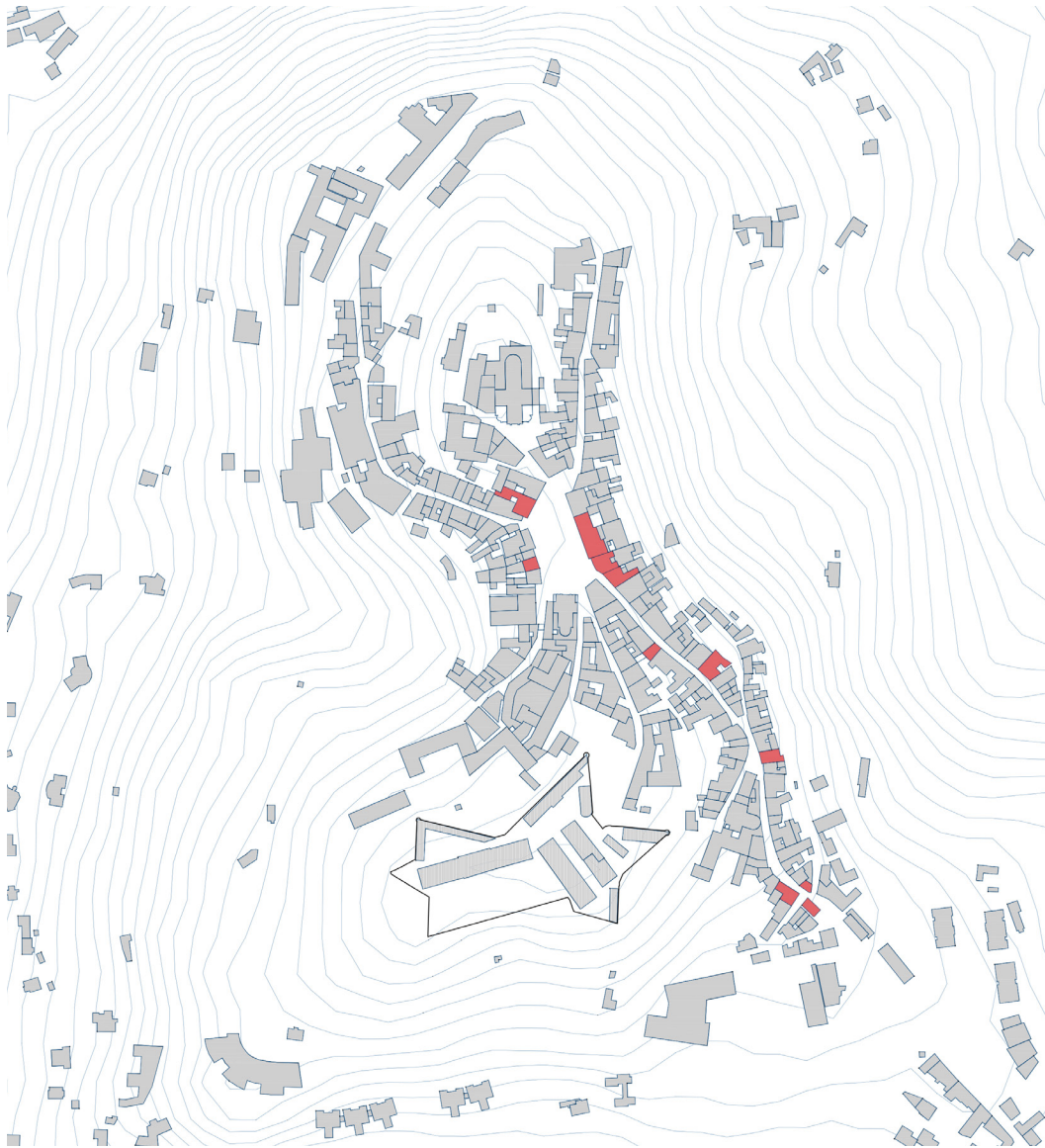


Image: Map of Retail Services in Mondovi Piazza
Source: From GIS Software by Author (data from Open-streetmap)

es. Not to mention of people, who have to go to Breo (lower Mondovi) in order to get daily groceries from the local market (shown in Map). It consumes substantial amount of energy and time for old citizens to do such trivial activities. This has also contributed for dependency on Breo (in commercial sense). Instead of trying to create a commercial nucleus on Piazza, the community relies on other places of Mondovi.

In order to help out in such things and boost small scale economy on the hill, it is important to create more space for business and production. And the production doesn't mean, in a large scale with huge industries, knowing the fact that Piazza has no room for such industries. Rather enabling community of Piazza for their artistic production. This assist in creating a heterogeneous micro-business satisfying various people. The quantity of retail businesses is evident in the map shown here which is very low. Even these have limited themselves to modern retail business in Piazza.

So the issue of personalized, hand made, small-scale production which helps greatly in job creation, economic growth and cultural preservation is fading from the streets of the Piazza Mondovi.

C. Impaired Tourism

Generally, not a great number of tourist flow/travel to Mondovi. One hardly notices domestic or foreign tourists wandering in the streets of Mondovi as well as Piazza. Various reasons can be attributed to it but one factor which hinders tourist flow is its impaired tourist destinations.

.....
“...however, tourists don't look for a cocoon of art/architecture rather search for a diverse atmosphere that places can offer..”
.....

Mondovi Piazza has wonderful archi-

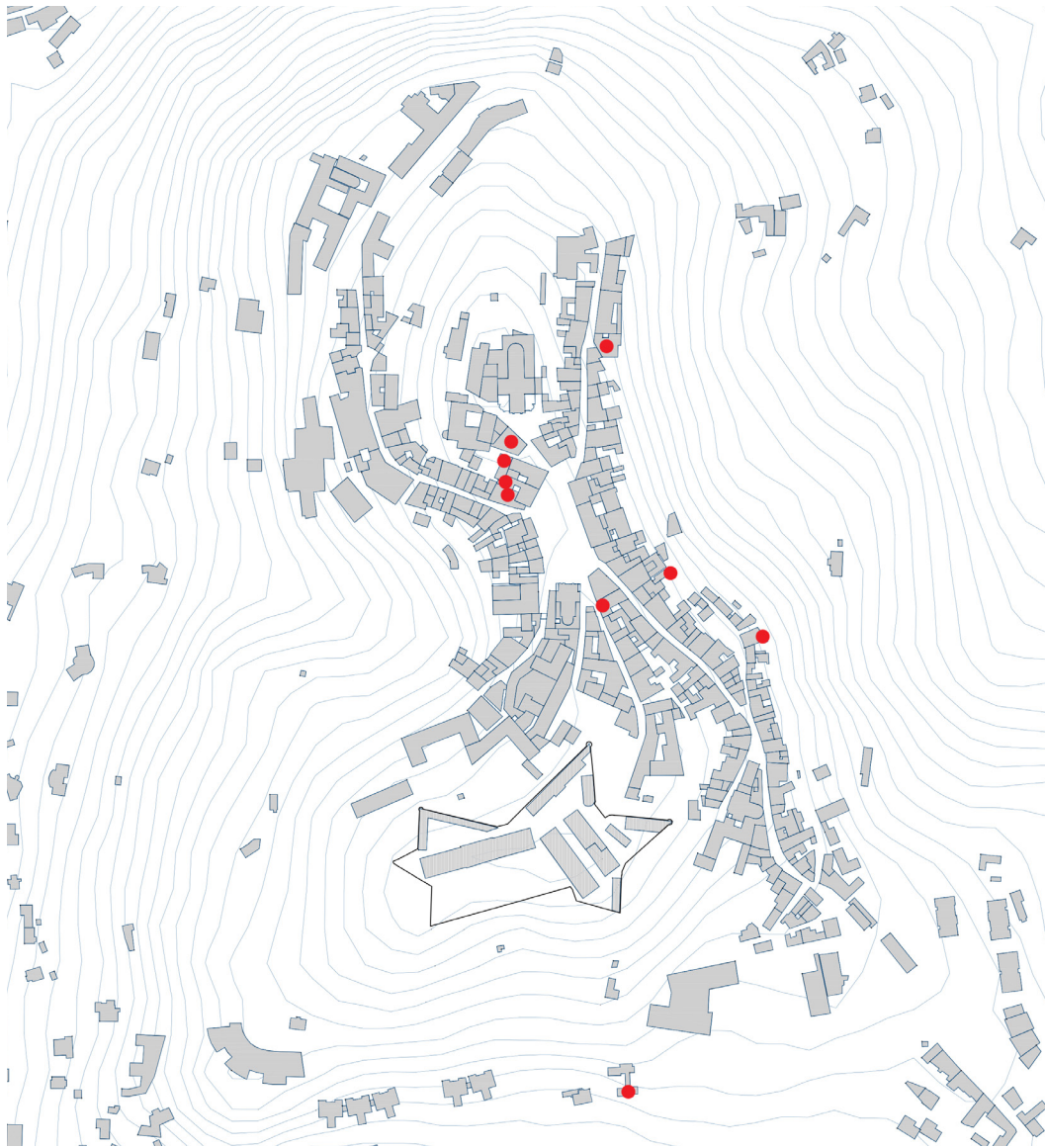


Image: Map of Guest Houses in Mondovi Piazza
Source: From GIS Software by Author (data from Open-streetmap)

tectural, cultural and religious heritage. It offers spectacular works of renowned architects, painters and artists. Wonderful sights of frescoes by the great painter and architect Andrea Pozzo, architectural works in Piedmontese Baroque style by Francesco Gallo, painted vaults in Piedmont Rococo by Giovenale Bongiovanni, historical civic works (tower, garden, Piazza) and other significant works are part of Piazza. Other strengths include Piazza's strategic location (on altitude) with great view of valleys (Alps and distant ski lifts) in winter. And eco-tourism (hiking and bicycling) in summers.

However, tourists don't look for a cocoon of art/architecture rather search for a diverse atmosphere that places can offer to them. Such an atmosphere can be created by strengthening other aspects of tourism like gastronomy, crafts, other sets of tradition and nature.

These things greatly enhance the impaired cultural and tourist destinations and folkloric events.

D. Erosion of Collective Memory

Various places on the Piazza of Mondovi which have been abandoned and are left disposed help in eroding the collective memory of the community. This is particularly relevant to the site i.e. Citadel of Mondovi as it is an important entity of Piazza's history.

.....
“...these shared pool of memories and information contributes to the social identity. This subsequently assists in preservation of narratives, image, ideas and values of such communities...”
.....

The first group of people which formed settlements on the hill in 13th century started their religious affairs

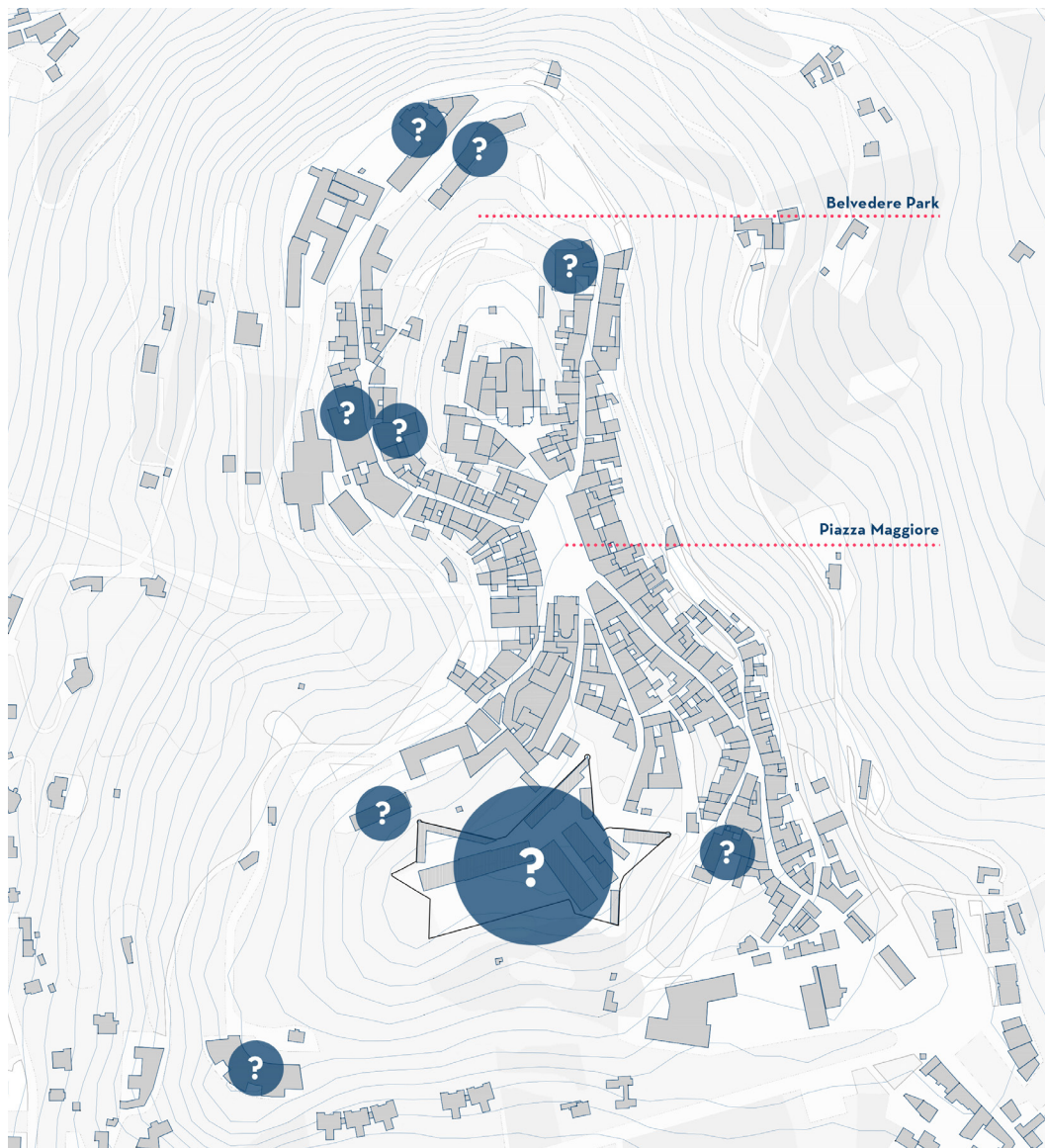


Image: Destiny and Memory of Citadel of Mondovì
Source: By Author

within the perimeter of the citadel. Later which took the form of cathedral and monastery. The French rule during the reign of Napoleon is also an important event of the Mondovi. During the phase, these religious entities were appropriated for military purposes and the shape of the citadel was changed radically.

Later these edifices were employed by Alpine troops to guard the territory around the Mondovi. And all of these events belong to memory and history of the people of Mondovi. These shared pool of memories and information contributes to the social identity. This subsequently assists in preservation of narratives, image, ideas and values of such communities.

7.3 NEEDS

The Piazza of Mondovi possesses architectural heritage (discussed and shown on maps earlier), landscape characteristics, history of artisan

production (ceramics, printing), gastronomy etc. These are necessary and intrinsic components included in the view of sustainable development. Keeping this important aspect in mind, here are some of the needs which are significant for the prosperity of the Piazza and its community.

.....
“... Piazza possesses architectural heritage, landscape characteristics, history of artisan production, gastronomy etcetera which are necessary and intrinsic components of sustainable development...”
.....

A. Strong Hospitality Industry

The infrastructure of hospitality system is significantly small. The whole system is reduced to couple of guest

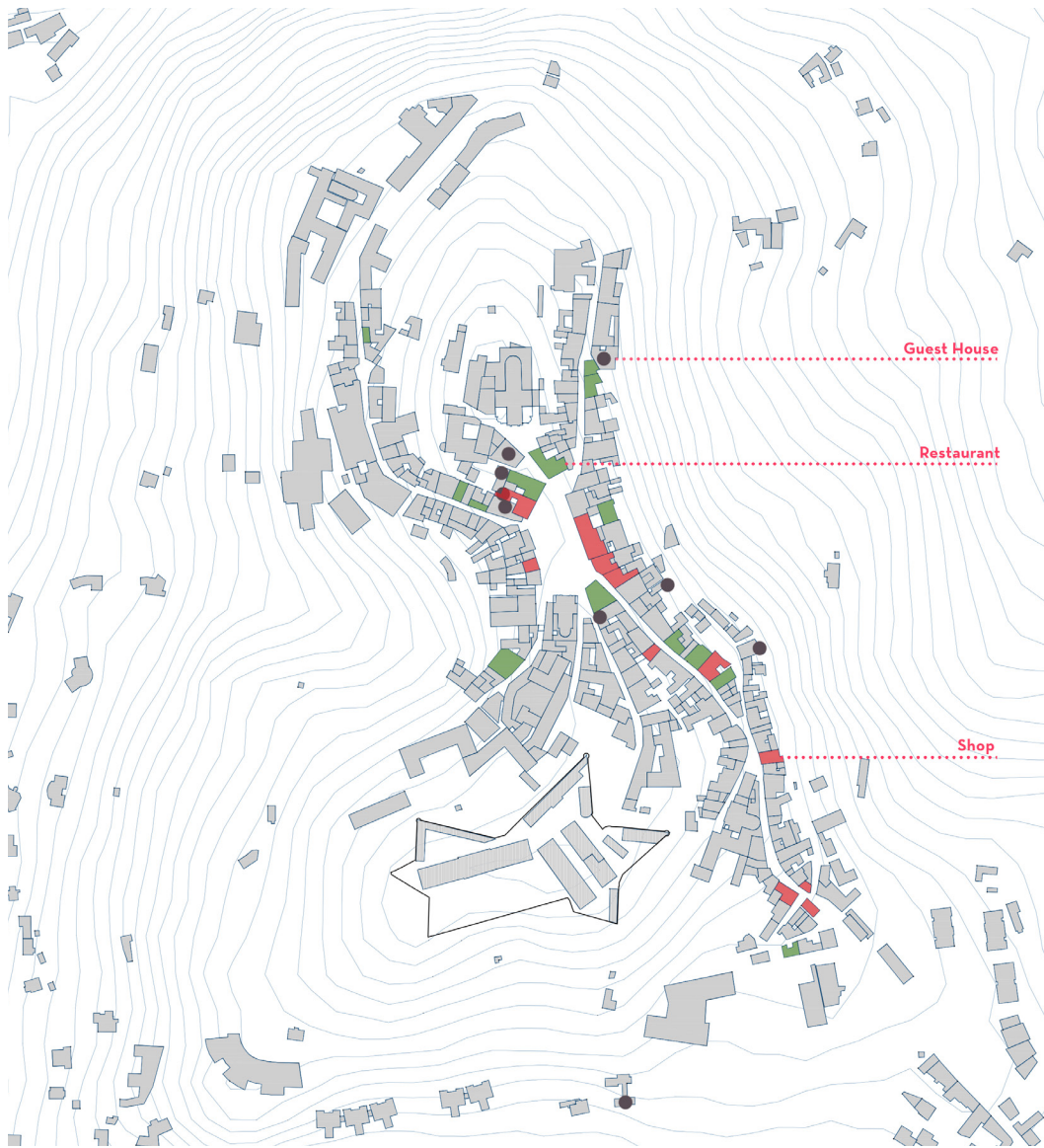


Image: Scale of Hospitality Industry in Piazza
Source: From GIS Software by Author (data from Open-streetmap)

houses (can be counted on fingertips) in existing residential areas owned by local people. A lack of effort from local municipality to enhance or strengthen this infrastructure is greatly needed. A municipal owned guest house, lodging facility or system of Airbnb accommodation must be boasted in the Piazza. It will enable potential tourists to dine and lodge easily. Unavailability of such facilities commonly create atmosphere of reluctance in tourists to visit such places.

B. Heterogeneous Social Space

The Piazza of Mondovi lacks a robust and vibrant social hub. Despite a nice location of the Piazza Maggiore (at the center of the hill), it has limited offers to the public especially youth and elderly citizens of the Piazza. Limited number of shops adjacent to handful of restaurants in a square occupied by vehicular parking de-

ride of natural environment leads to inactivity in a public space. This has resulted in flow of younger generation and elders to the lower Mondovi for entertainment, pleasure and leisure.

.....
“...Piazza Maggiore with its limited number of shops adjacent to handful of restaurants in a square occupied by vehicular parking stripped off of natural environment makes unattractive social hub...”
.....

Therefore an effective social hub with variety of activities for different ages and audience is crucial to foster a vibrant and healthy social environment on the Piazza of Mondovi. This will further give room to various public and communal events on the Piazza. The stimulation and birth of multiple events in itself is an important aspect of healthy social life.



Image: Existing Social/Public Spaces in Piazza
Source: By Author

Social space consequently acts like a magnet in adhering various social components of the society.

C. Innovative Economy

The Piazza Mondovi has previously attempted to bring innovation and technology to public sphere by organizing events for local people. Events where people were able to experience virtual reality tools to experience their architectural heritage. Such attempts expose public to innovation in business and thinking.

Mondovi which once used to be pioneer of printing in past, seat of university and knowledge and place of industrial production needs to reinvigorate creativity, entrepreneurship and innovation for its youth as well as for the regions around itself. Space for innovation and entrepreneurship via collaboration with renowned institutions is required. Institutions like Fablab Torino, Toolbox Coworking, Top IX, Six eleven, Torino Social Innovation, Infinito, Club degli Investitori, Talent Garden Torino, I3P, Incubatore Imprese, etc. will greatly help local creativity to foster environment of innovation and creativity in existing economies.

“... once used to be pioneer of printing in past, seat of university, knowledge and place of industrial production needs to reinvigorate creativity, entrepreneurship and innovation for its youth ...”



Image: Institutions boosting Innovative Economy
Source: http://www.torinosocialinnovation.it/aprile_2016.jpg

7.4 OBSERVATIONS

A. SOCIAL LIFE MAPPING IN MONDOVI PIAZZA

The intensity and quality of social life varies across the Mondovi Piazza. Some places attract greater number of people to themselves than the others. The factors are various which affect such phenomenon; amenities around the area, the quality of the place itself etc.

During the visits to the piazza Mondovi, this social life was observed in the different parts. And the result is mapped (shown in the map). It is noticeable that people were seen in greater number in places like Piazza Maggiore and in areas of Belvedere Park. Also some streets were more engaged as compared to others. While some places especially the southern tip was substantially silent and less number of people were observed. The streets around citadel were relatively empty. Citadel being

a large chunk of land lies as a crater and is void of public and social life.

.....
“...streets around the citadel and citadel itself has less number of people as compared to other parts. The citadel lies as a crater and is a big void for social and public life in the piazza Mondovi ...”
.....

The human activity next to the citadel in and around the Piazza d’Armi is relatively greater. The location of the school as well as the parking facility in the said piazza being two important factors. Despite a great concern (a large piece of land lying empty doing nothing for the community), the situation is an equally an opportunity to counteract. Just like the other public attractions in the piazza Mondovi, the place of the citadel can be a potential attraction for the

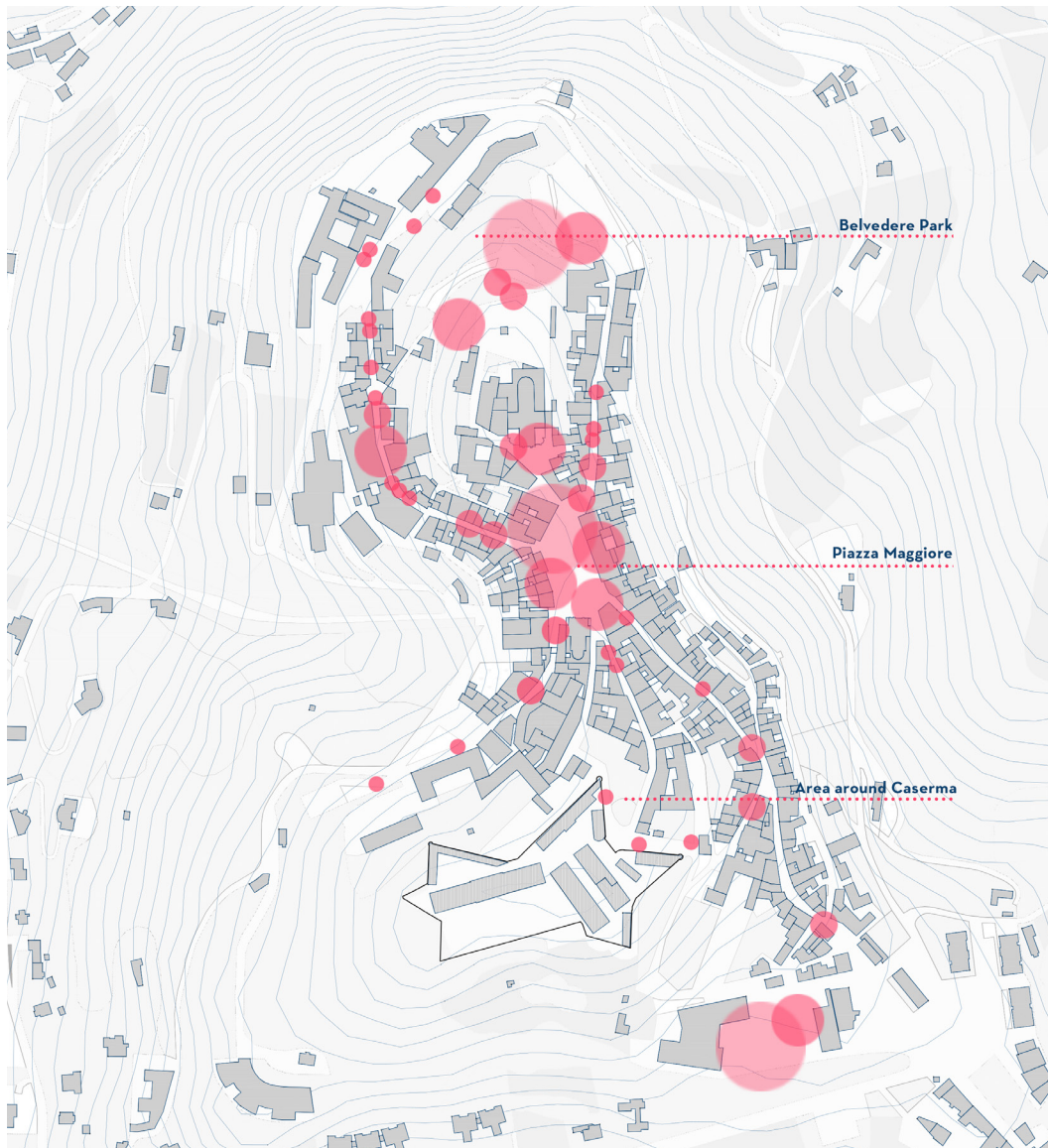


Image: Mapping - Social Life in Piazza
Source: By author

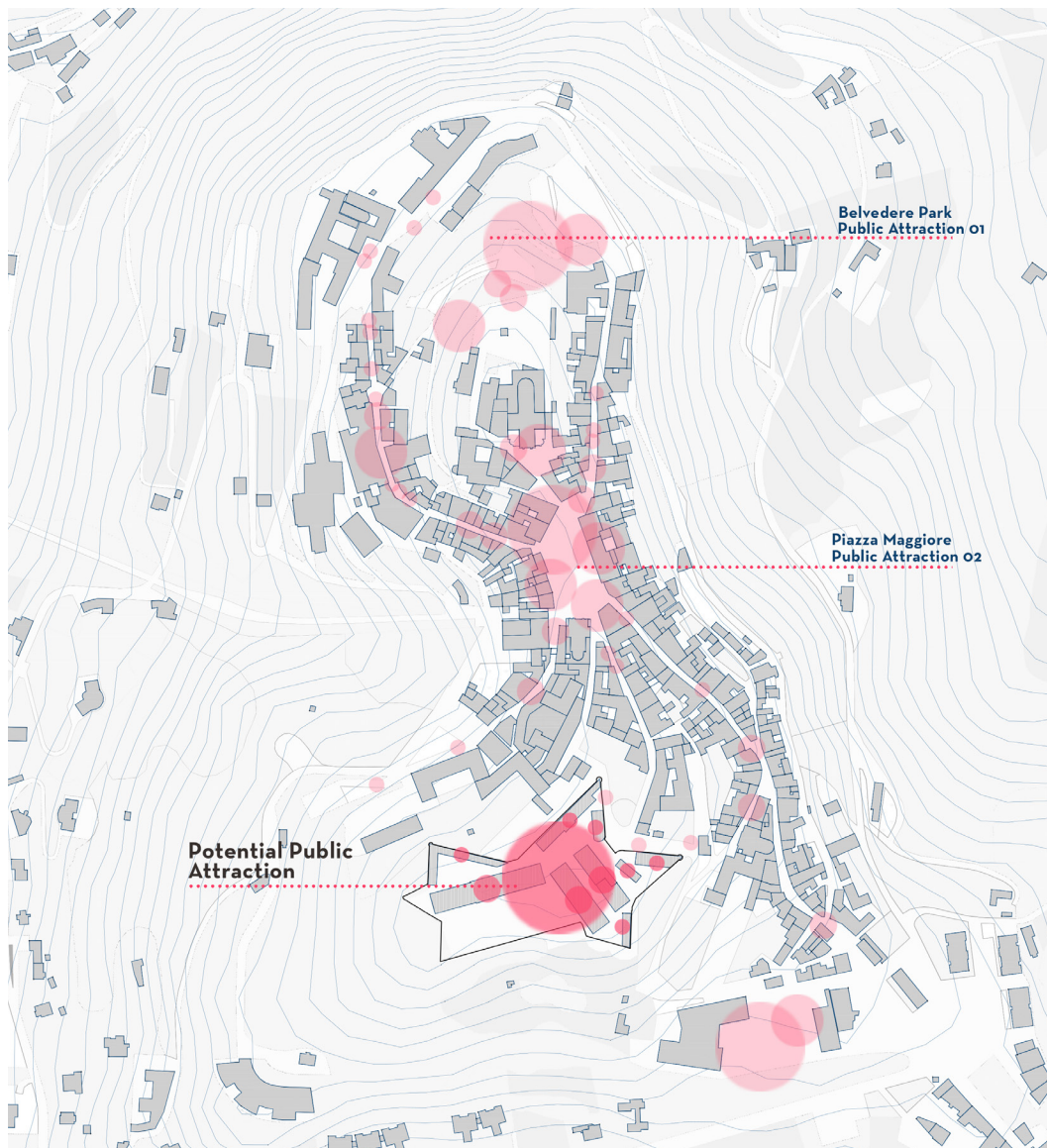


Image: Potential Public Attraction Spot - Citadel
Source: By author

public and community of the piazza as well as Mondovi. The place can be turned into a third social nucleus just like Piazza Maggiore and Belvedere Park. In addition to this, the existing buildings inside the citadel can be turned into potential public utility. Not to mention of the empty outdoor space which can be transformed into a communal infrastructure. All of these positive aspects of the place make it a potential space destined to serve public instead of lying as empty.

.....
“... like the other public attractions in the piazza Mondovi, the place of the citadel can be a potential attraction for the public and community ...”
.....

D. NETWORK OF ABANDONED, RE-USED AND PUBLIC ATTRACTIONS

As it has been discussed in the earlier chapter about the state of abandoned and disposed buildings in Mondovi as well as Mondovi Piazza. There are more than 32 buildings edifices lying empty in mondovi and some of them which are located in piazza are shown in map. While it has also been discussed earlier that some of the buildings in the territory are restored and reused with the help of organizations (Map shows the disposed and reused building in piazza). These restored buildings have enabled community in proliferating the social, cultural, economic and environmental spheres in different ways.

A network of these buildings with the help of existing routes can be created in order to enhance greater connectivity. This type of connectivity will assist in increasing the importance of the disposed buildings, thus fostering discourse to reuse those buildings in the future. Not solely this, rather this connectivity can be super-imposed to the social nuclei of the piazza which will further strengthen the social and spatial



Image: Potential Social Circuits
Source: By Author

connectivity on the hill.

.....
“... network of disposed and reused buildings with existing routes can be formed in order to enhance greater connectivity ...”
.....

Ultimately, the disposed asset which is located on the southern tip of the piazza - Caserma G. Galliano - can be integrated into this network of spots so that it will be able to revive its true glory and significance. Not only this, the historical dimension of the place, the memories of the place can be brought again through different programs so that the general public will be able to know the history and people of the piazza and citadel.

Since, sustainability has been always the core value of the emerging and progressive societies, the route which is intended to connect all of

the places, can be weaved together with the help of smart mobility. This will create a greener, sustainable, safer and cleaner way of connecting places and people, which will not only be economically efficient but also practically viable.

.....
“... the disposed assets, reused buildings and social attraction nuclei is integrated into a single system with smart mobility ...”
.....

The map shown represents the ultimate objective, creating a polycentric piazza, offering diverse life quality of life for inhabitants as well as tourists. It will enable in narrating the complete story of the piazza which is incomplete without the story of the Citadel, the medieval church and the barracks which were added later. Consequently, the rich history of the place will be engraved in the built fabric of the piazza ready to be read.

E. ACCESSIBILITY TO OPEN MARKET IN BREO, MONDOVI

It is worth to mention here, in the section of analysis that the facility of the open market is available in

the Breo, Mondovi (next to River El-lero). People from different area of Mondovi (Breo, Antipiano, Borgato and Piazza) come here to buy daily usage items. Public in the vicinity of the Breo access the market by walking while those whole are located at larger distances reach here by vehi-

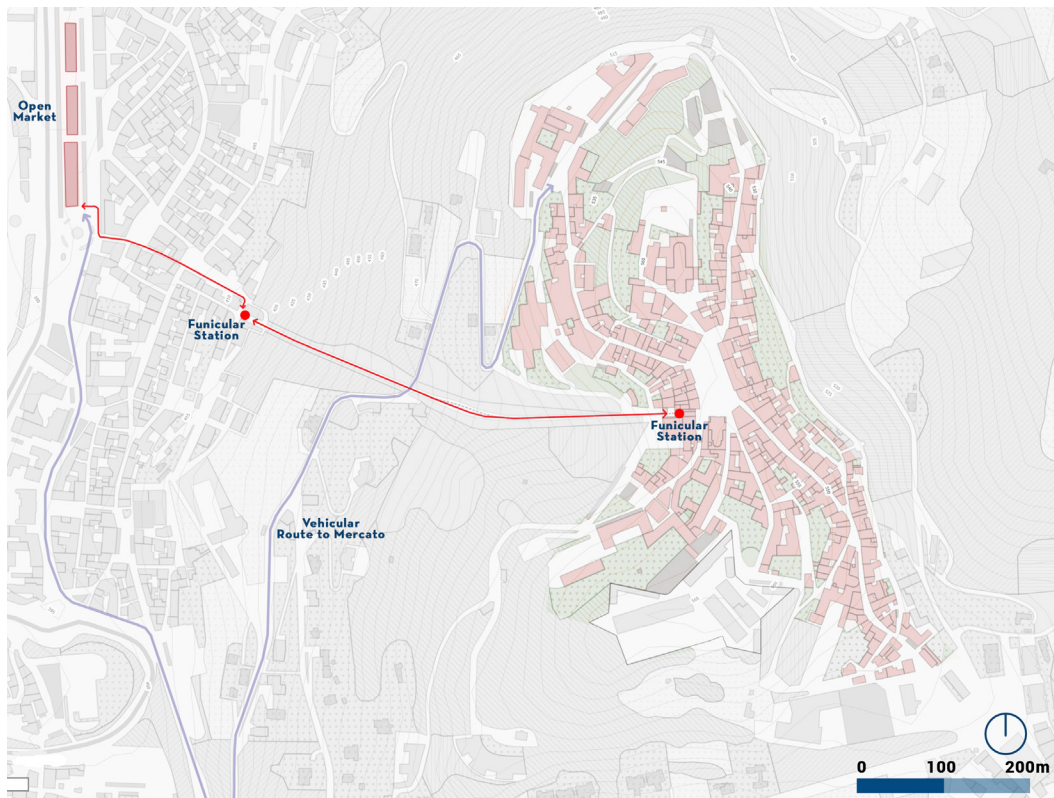


Image: Accessibility to Open Market in Breo, Mondovi
Source: By Author

cles.

The market offers variety of items. Items of daily use are readily available here in the open market. Also, fresh vegetables and fruits are being put on sale by the local vendors here under the market metal structure. The place has enough space for back door services (vehicular access to unload and load items).

This public facility, which enables people to buy fresh fruits, vegetables, helps in micro-economic. It has a dark side for people of Mondovi Piazza. The inhabitants of the hill have to cover a good amount of distance to come to the open market regularly. The market is located beyond 1.5 km radius of the piazza. This is a big hurdle for the senior citizens in accessing the market. Though the people of the piazza have the facility of the funicular and bus service but the amount of time one has to spend to reach the market is still a negative aspect of the market. The said issue sheds light on an important issue about the primary amenities; the im-

portance of open market in accessible/walkable vicinity.

.....
“... inhabitants of the Mondovi Piazza have to cover a good amount of distance to come to the open market regularly. The market is located beyond 1.5 km radius of the piazza. This is a big hurdle for the senior citizens in accessing the market...”
.....

This aspect can be dealt by providing an open market on the piazza itself. This will cater to the people of the piazza and may even attract people from the southern vicinities of the Mondovi Piazza. And the abandoned citadel of the Mondovi Piazza with empty buildings and ample amount of outdoor space offers a nice opportunity. And this opportunity can be availed by providing such facility in the citadel.

7.5 VIBRANT PIAZZA - AN URBAN STRATEGY

The list of the issues and the needs of the Mondovi Piazza may be long (or even never ending) but the ones which have been mentioned are the most significant ones (at least I believe) which needs due consideration. These are significant in the sense that doors towards the sustainable growth can be opened with the help of local culture (arts, crafts, gastronomy, architecture, heritage), natural environment, innovation and eco-tourism. And that is a direction the thesis is looking for. A conducive atmosphere (a network) with the help of aforesaid elements can be shaped in the abandoned places of the Piazza to generate interest, social life, innovation and folkloric events.

Such a mix of components at a local scale assist in thriving the Small scale economies and culture in more effective and long term ways. Not only this, they lead to activation and re-

activation of new systems and new possibilities when combined with innovative economy. The creative energy of current generation can be employed to re-brand the traditional businesses. New collaborations and entrepreneurship can be initiated.

.....
“...the door towards the sustainable growth can be opened with the help of local culture (arts, crafts, gastronomy, architecture, heritage), natural environment, innovation and eco-tourism, and that is the Urban Strategy to be explored...”
.....

With the same ideas, the Citadel of Mondovi (an abandoned asset) can be recovered and reactivated through a fusion of intrinsic properties of the Piazza (culture, art, architecture, gastronomy, nature) with innovation and tourism.

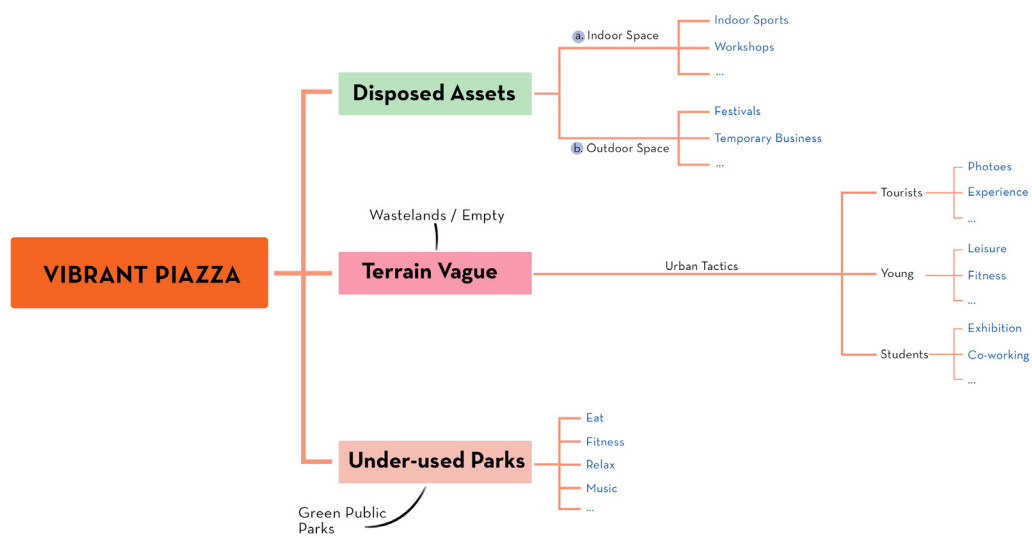


Image: Space Activation as an Urban Strategy for
Piazza Mondovi
Source: By Author

7.6 COMPONENTS OF URBAN STRATEGY

There are three types of spaces to be dealt as part of the urban strategy - Space Activation. Terminologies employed are result of studying the needs and analysis of the Piazza Mondovi. They represent certain features of Piazza which are to be activated (rejuvenate) through various ways and tactics. These three major spatial domains are as under.

- a. Disposed Assets
- b. Terrain Vague
- c. Underused Parks

All of them are diagrammatically mapped (shown in the illustration - Urban Strategy) with corresponding urban interventions at grass root level. The three major spatial domains mentioned are the ones, which effect sociality and performance of the Piazza negatively. These are also the areas which have 'unexpected reservoir of resources full of potential'. Each domain is treated separately in

order to get a heterogeneous results which will help in the spatial activation on the Piazza Mondovi.

.....
“...the three major spatial domains of Urban Strategy are the ones, which effect sociality and performance of the Piazza negatively. But these are also the areas which have ‘unexpected reservoir of resources full of potential’...”
.....

The first category i.e. disposed assets deals with permanent spaces which are scattered across the Piazza Mondovi. These are further associated with two types of spaces. Indoor spaces and Outdoor spaces. The indoor spaces of these vacant assets can be used for indoor sports, workshops etc. While the outdoor spaces can be employed for the general festivals and temporary businesses like

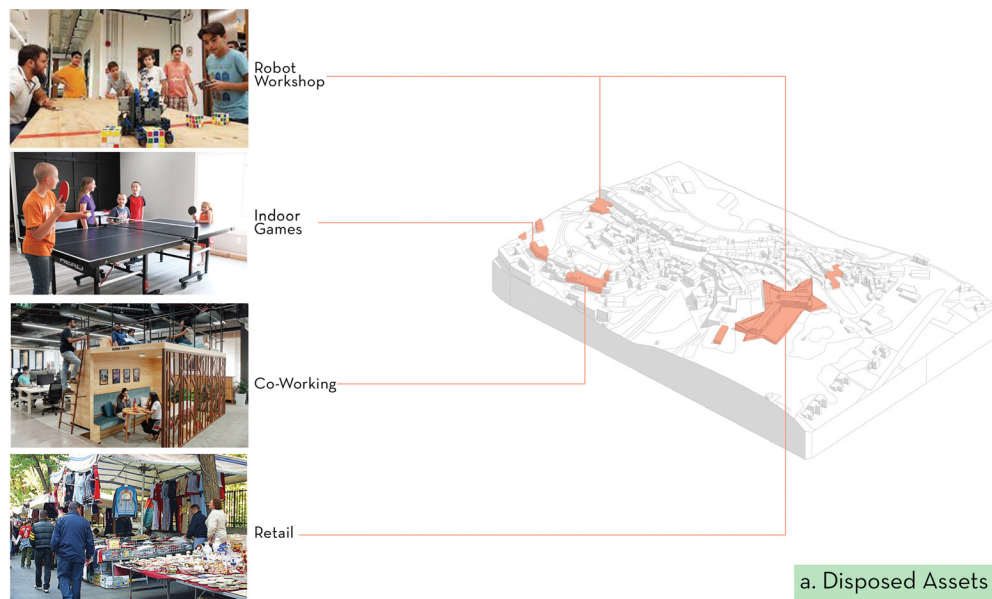


Image: Transformation of Disposed Assets in Piazza
Source: By Author

open markets and craft stalls.

The 2nd category which will help in activation of Piazza Mondovi is 'Terrain Vague'. 'Extremely suggestive term, the terrain vague is not a wasteland, terrain means plot, available area, vague stands for uncertain, indefinite but also empty, waiting for a sign to be invented that connotes it and makes it a place.'

'It is a residual element without specificity, not regulated, opens up to new functions and bends to new uses, organic to dynamics of transformation of the city.'

The approach employed to deal 'terrain vague' is 'tactical urbanism'. A method which is generally considered low-cost, neighborhood friendly and participative. These are 'scalable intervention to catalyze long term changes.' Urban tactics involved under this approach 'aims to make small part of the city more lively'. It advocates sociality in urban spaces thus enhancing sense of community. (Refer to image titled

'Transformation of Terrain Vague in Piazza Mondovi')

“...terrain vague is a residual element without specificity, not regulated, opens up to new functions and bends to new uses. This terrain can be approached via Tactical Urbanism which aims to make city more lively...”

.....

The 3rd and last category to be dealt for spatial activation is 'Underused Parks'. These are areas which have potential as 'social magnets'. But scarcity of activities, indefinite character of the space make these spaces dull. In order to integrate such spaces actively into urban fabric, couple of activities are assigned to them. It will contribute for vibrancy and robustness of urban life for youth, tourists and senior citizens. Remember that, all of the aforesaid

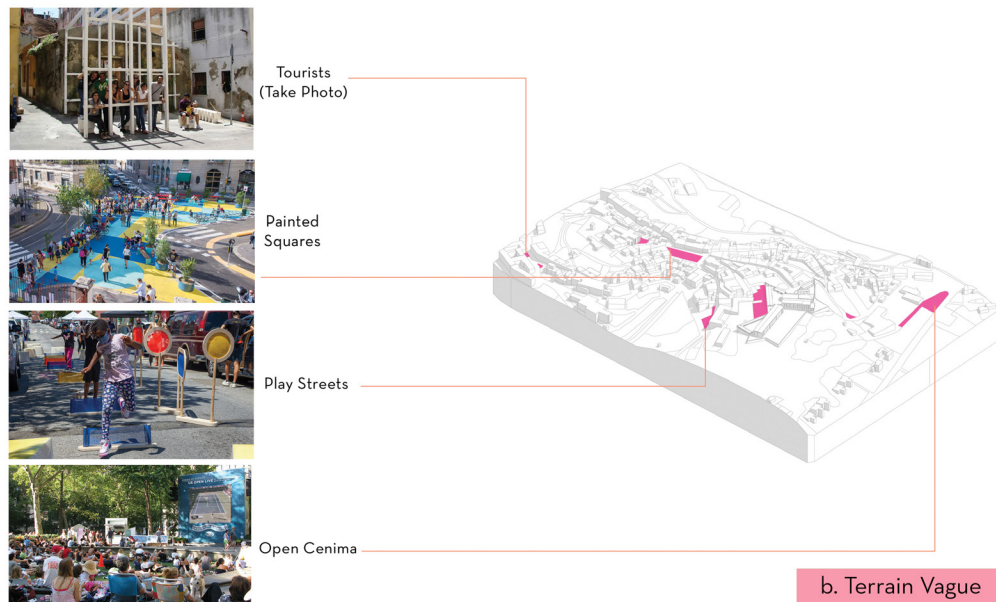


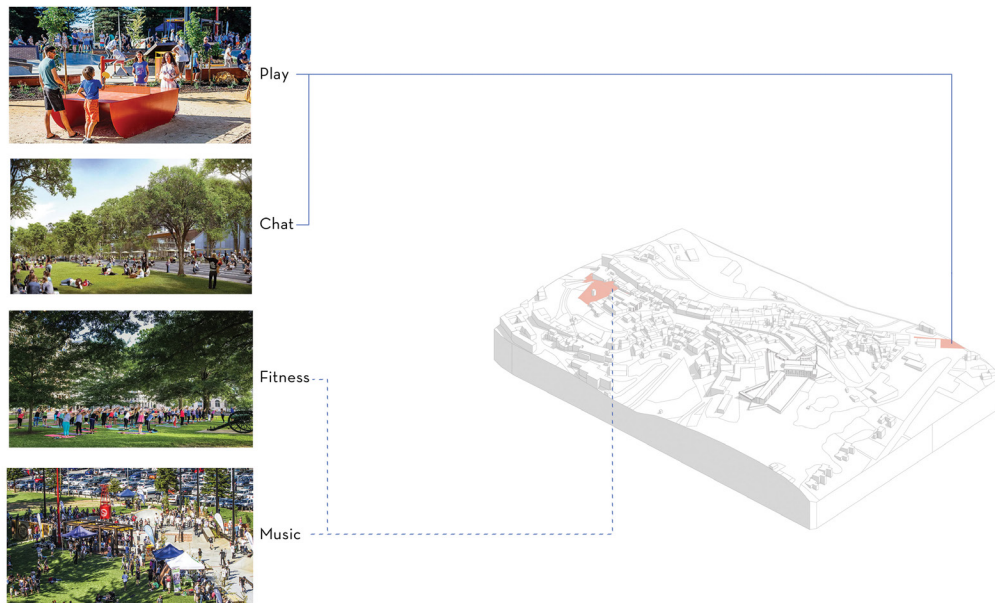
Image: Transformation of 'Vague Terrains' in Piazza Source: By Author



*Image: Transformation of 'Terrain Vague' in Piazza
(View Before and After) - Location shown in 'Urban
Strategy Map of Piazza' at the end of this section
Source: By Author*



*Image: Transformation of 'Terrain Vague' in Piazza
(View Before and After)
Source: By Author*



c. Under-used Parks

Image: Transformation of Under-used Parks in Piazza
Source: By Author



*Image: Transformation of 'Terrain Vague' in Piazza
(View Before and After)
Source: By Author*

three spatial categories are connected to each other through smart mobility. (Refer to Image titled 'Smart Mobility in Piazza Mondovi')

“...the smart mobility doesn't only help in moving from place to place but also connects those spaces and activities which are designed to make the place accessible and sociable (and thus lively)...”

.....
The smart mobility has four major modes to move from one place to another. It includes bicycle, electric scooter, electric unicycle and lastly by walk. All of them are green modes of mobility with less impact on natural environment. The path of the smart mobility is connects the piazza from all sides. Users like tourists and local people can access every corner of the piazza with the help of smart mobility.

The smart mobility doesn't only help in moving from place to place but also connects those spaces and activities which are designed to make the place accessible and sociable (and thus lively). The various modes of mobility will have specific stands and charging spots across the piazza for usage.

In addition to this, the existing and restored cultural assets are located on the routes of smart mobility. These cultural assets are enhanced with digital technology like Virtual Reality and video mapping to experience the great frescoes of Mondovi (painted inside different buildings). These belong to great artists of the earlier centuries. Also, various nodes enable the tourists to take pictures and view great landscapes of Mondovi and surrounding Alps in different seasons.

In brief, these urban interventions will create a lively & robust urban environment for tourists & locals.

7.7 INTEGRATING TO

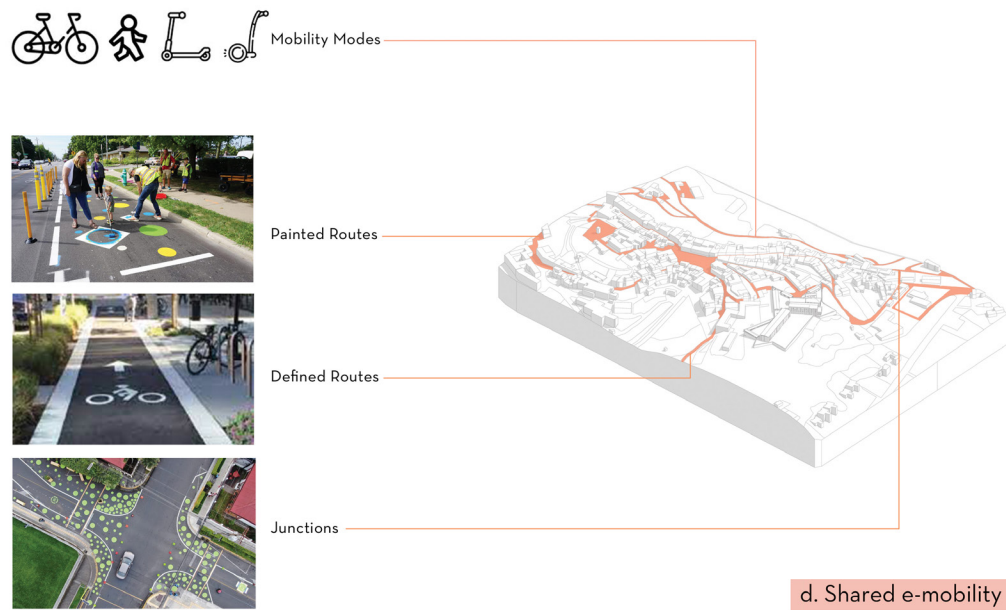


Image: Smart Mobility in Piazza
Source: By Author



Image: Smart Mobility in Piazza
(View Before and After)
Source: By Author

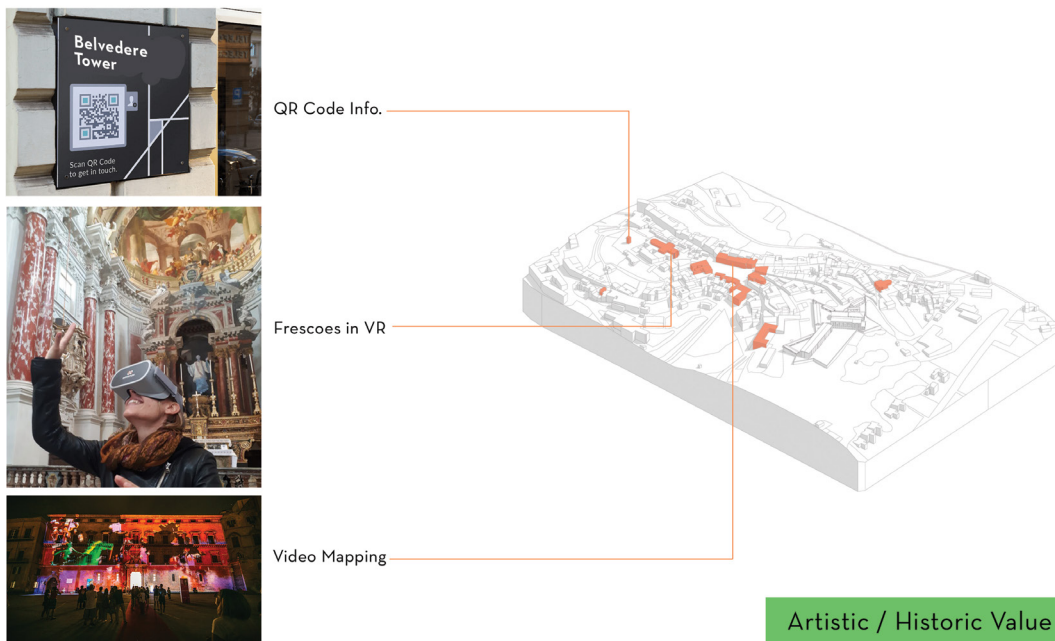
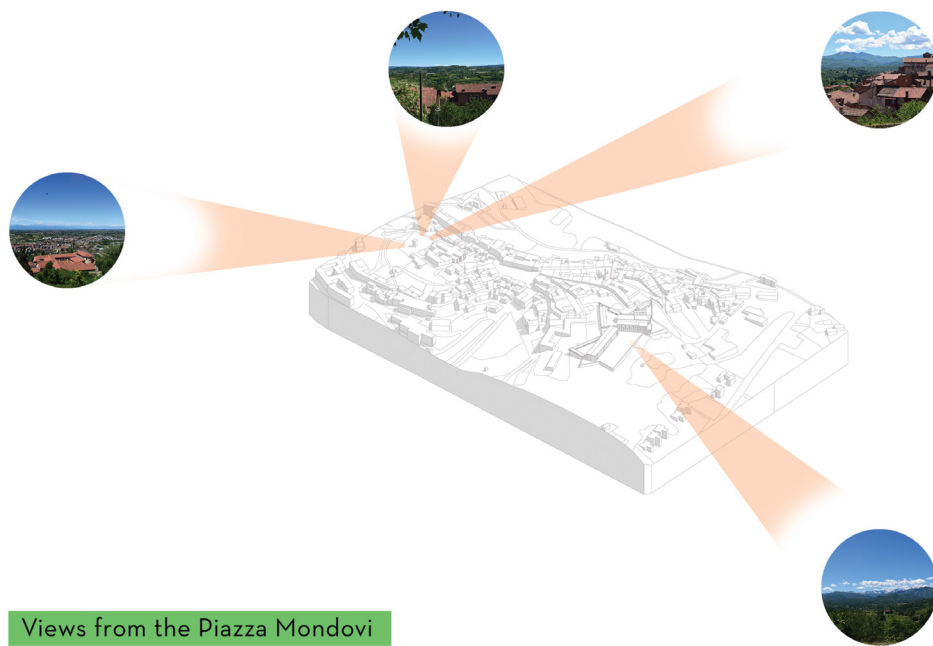


Image: Places of Artistic & Historic Value in Piazza to be experienced with Digital Technologies
Source: By Author



Views from the Piazza Mondovi

Image: Viewing Points from Piazza
Source: By Author

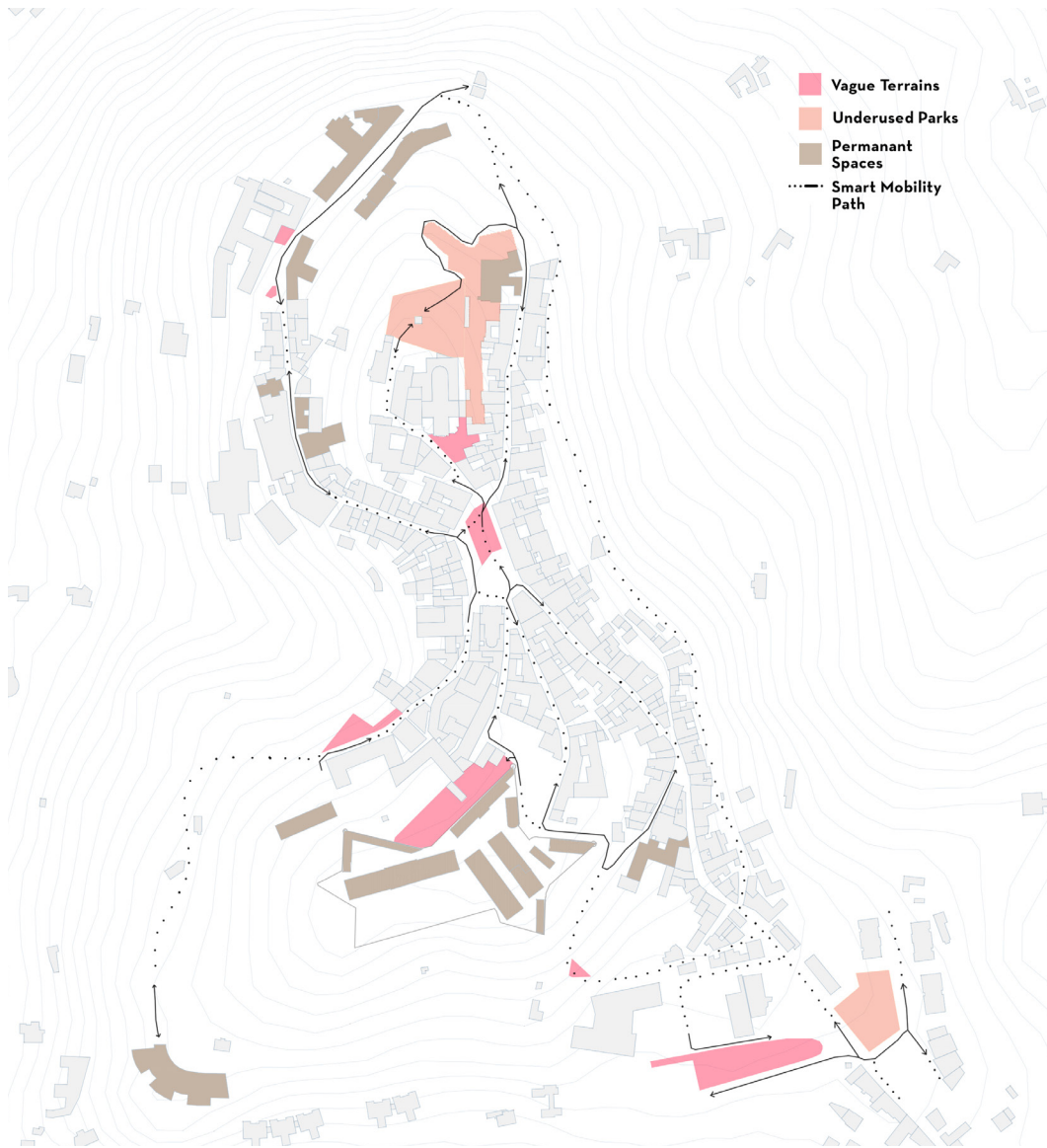


Image: Urban Strategy Map
Source: By author

TERRITORIAL DESTINATIONS

Though the Piazza Mondovi can be connected through techniques mentioned and illustrated earlier in this section, it is equally important to integrate it with territorial destinations (especially tourist circuits).

These destinations located around the Mondovì are shown below in the map. These places offer unique food, crafts, excursion spots, trails, refuges which are great sources of eco-tourism, especially when integrated together. The images here show circuits of destinations and specialties of each place in monregalese region.



Image: Destinations in Monregalese Region
Source: <https://turismo.unionemonregalese.it/>

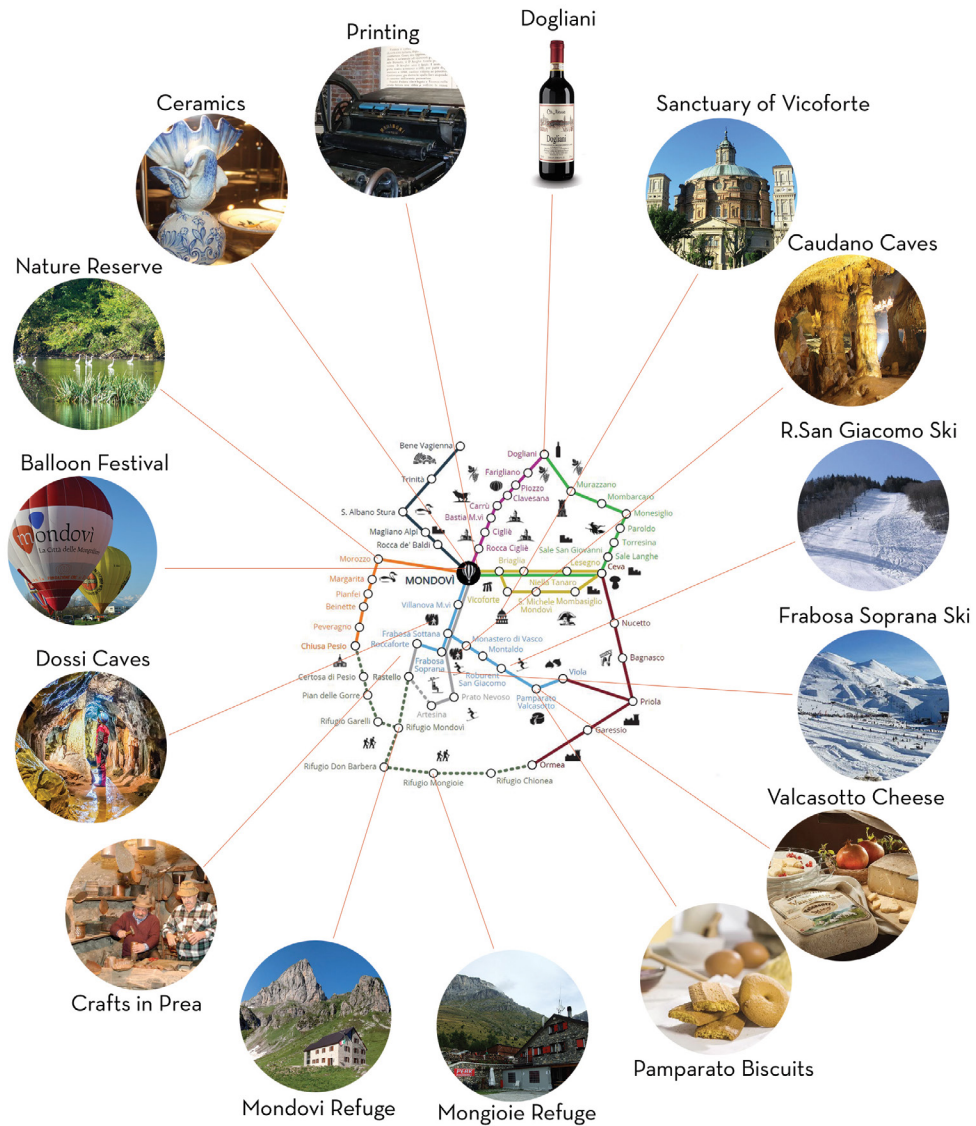


Image: Destinations in Monregalese Region (Mapping)
Source: By Author

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Part 3: Recovery of Citadel

Chapter 08

Case Studies

8.1 CASE STUDIES (ABANDONED MILITARY ASSETS)

Following portion discusses some of the re-functionalization, regeneration methods employed by various practices in order to reactivate abandoned sites. Some of the projects are direct in their approach while other have taken more indirect (engaging local authorities, private public partnerships).

It is interesting to note that the mere changing the functions (in these abandoned spaces) have not proved to be as effective as it should have been in activation of abandoned sites. It has only helped turning places into fancy architectural boxes - void of real regeneration. Therefore in such cases, engaging people rationally and responsibly has proved to be prolific for the cultural & economic value. These case studies help shedding light on methods of enhancing the potential of the partially or totally inert sites. Each case study

mentioned in this portion highlight different aspect and dimensions to be considered which are helpful.

.....
“...engaging public rationally and responsibly has proved to be prolific in increasing the cultural and economic value of abandoned sites.”
.....

In addition to this, it is worthy to mention here that there is a background and reason to re-use disposed assets particularly the military assets/structure (as is our case of Citadel of Mondovi). The number of disposed military assets in Italy is huge. The reasons may be different and multiple but the fate of such asset is such that these have now become ‘empty containers’ devoid of social life and utility. Some of these empty containers were later used by different institutions like Carabinieri, Forestale, Guardia di Finanza and Polizia di Stato. Despite this, there is still a large quantity which remains empty.

According to a report the number is around 1500. Some of these empty military barracks are envisioned for alternative purposes like university campus, artist's residencies, technology hubs, spaces for entrepreneurs etc. Another document⁵ provides the details of these empty barracks across Italy in different provinces. Some of the barracks in the list are used by the aforesaid state institutions but there are around 580 assets which are disposed. The graphics presented at the end of this section give lists of assets and their locations.

.....
“... according to a report the empty barracks are around 1500 ... Some of the listed disposed barracks mentioned are 580...”
.....

8.2 RECOVERED FORMER BARRACKS

The gradual awareness about signifi-

5. 'Rivetti Caserme Dismesse' (see sitography)

cance of abandoned barracks in Italy and their capacity to contribute for the society has changed attitude of professionals. Professionals have realized their potential and have started to propose alternative functions. Functions like university campuses, public spaces, mixed use complexes, libraries etc. are being proposed. The trend is increasing with time.

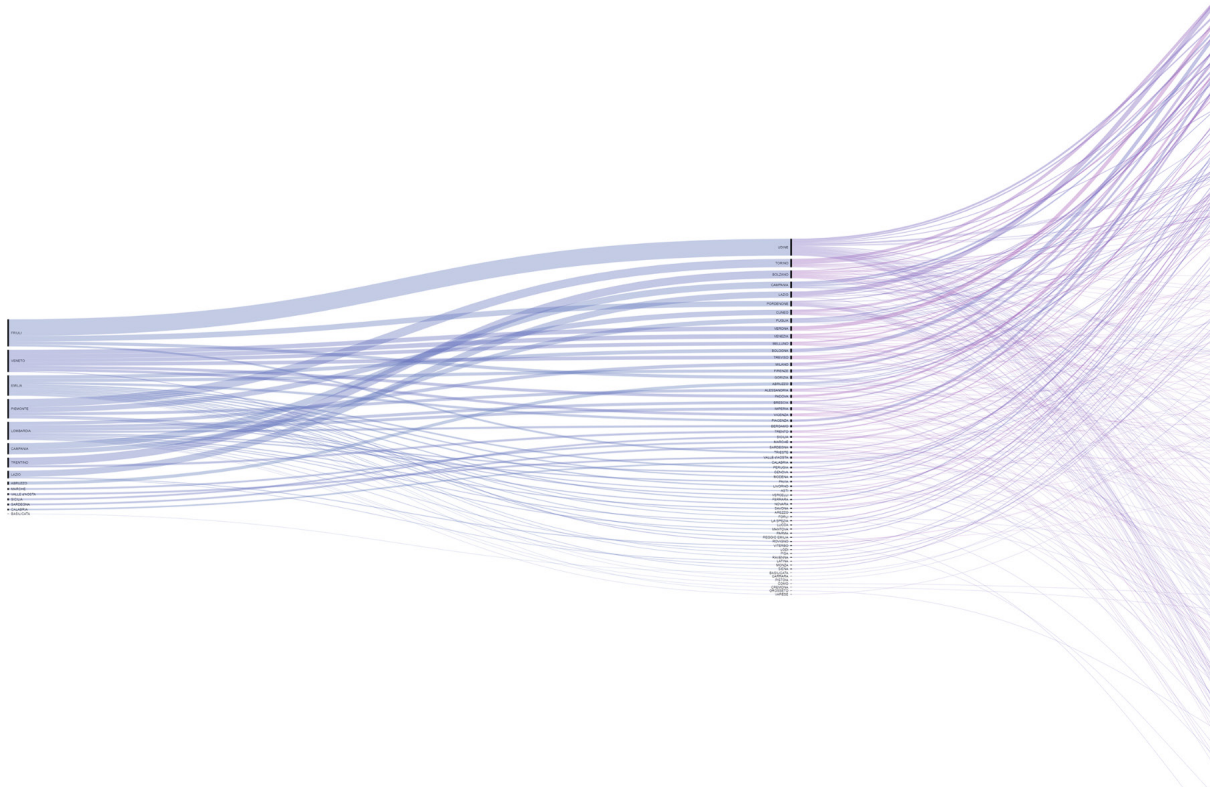
This section on the next pages present some of the examples of former military assets. These are re-used and transformed for other functions of social utility and needs. The relationship with the interventions with existing is briefly explained in each case.

.....
“... awareness about significance of abandoned barracks in Italy and their capacity to contribute for the society has changed attitude of professionals.”
.....



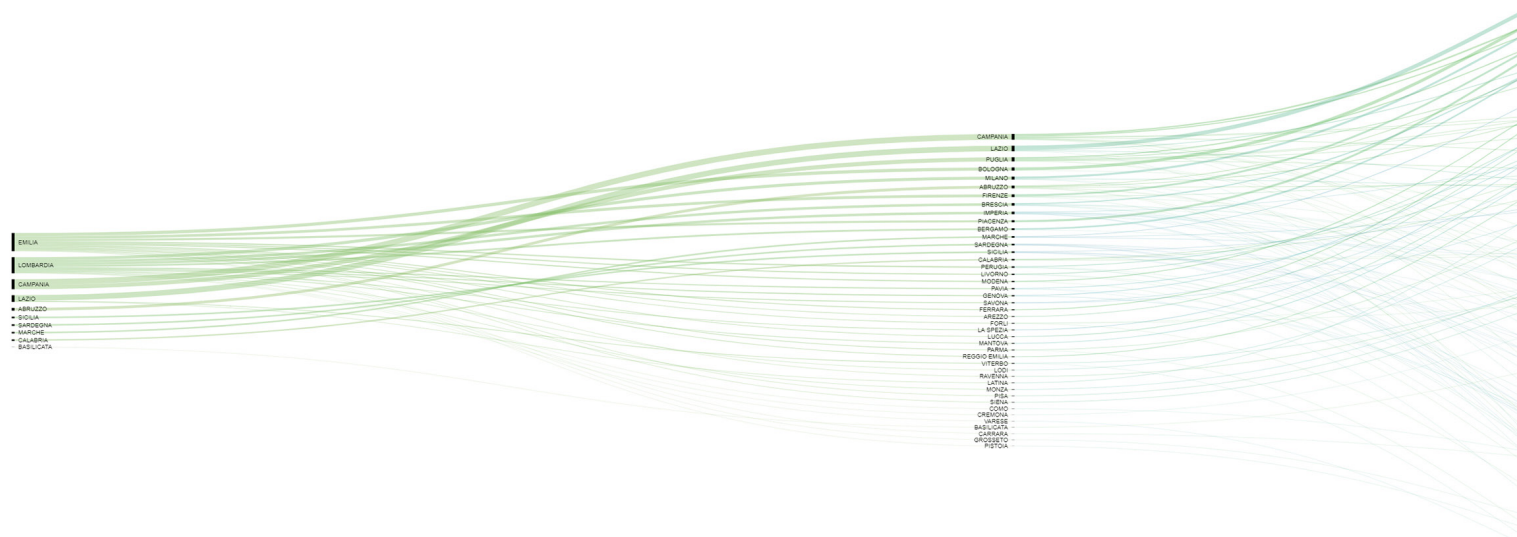
Image: An example of abandoned barrack in Italy to be reused is Novara – Former Cavalli Barrack
Source: <https://www.investinitalyrealestate.com/en/property/novara-ex-caserma-cavalli/>

Source: Diagram by Author & Information taken from <https://trsfolgore.myblog.it/wp-content/uploads/sites/437707/2020/05/Rivetti-Caserm-dissime.pdf>



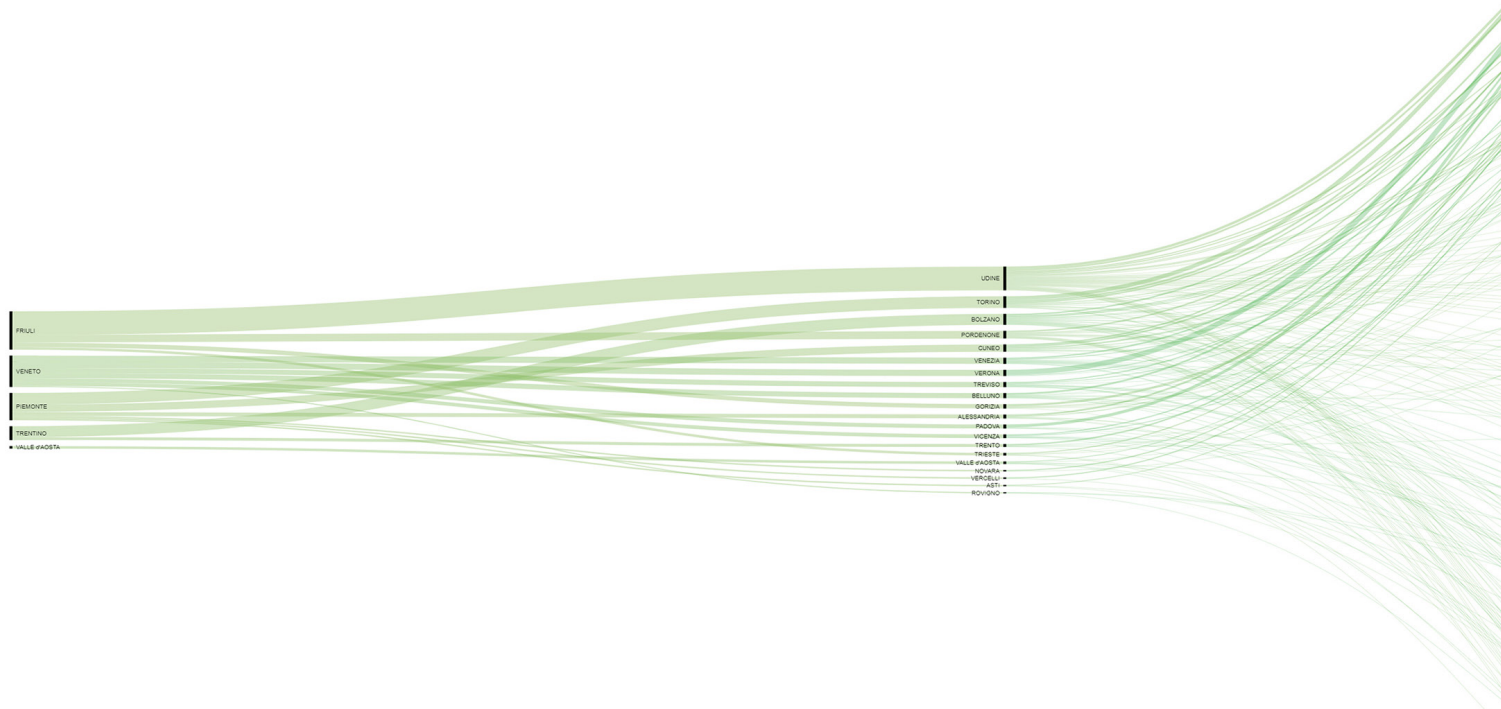
List of Disposed Barracks in 15 Regions of Italy

Source: Diagram by Author & Information taken from <https://trsfolgore.myblog.it/wp-content/uploads/sites/437707/2020/05/Rivetti-Caserme-dismesse.pdf>

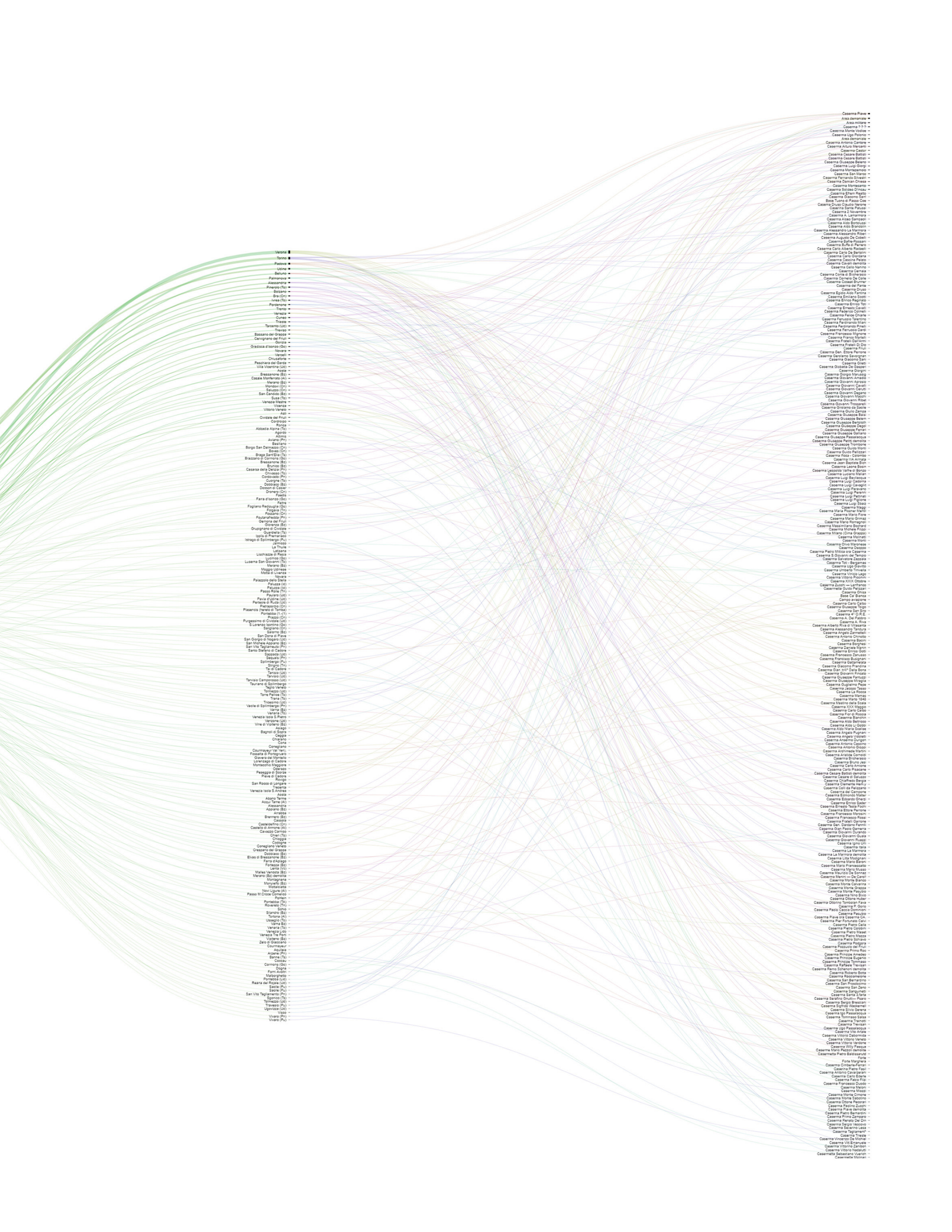


Disposed Barracks in regions of Emilia, Lombardia, Campania, Lazio, Abruzzo, Sicilia, Sardegna, Marche, Calabria, Basilicata

Source: Diagram by Author & Information taken from
<https://trsfolgore.myblog.it/wp-content/uploads/sites/437707/2020/05/Rivetti-Caseme-dismesse.pdf>



Disposed Barracks in regions of Friuli, Veneto, Piemonte, Trentino and Valle d'Aosta



8.3 Former Bligny Barracks, Savona (Italy)

The former Bligny Barracks are located in Savona, Italy (Liguria). The barracks has been converted into university campus and training center (for Università di Genova).

The re-use programs consist of buildings for training, library-mediateque, laboratory buildings, residences for students and auditorium. The total area of the project is around 8850 sqm.

The aim of the project (as explained by the design team) was to transform the place, in terms of functionality, spatial and psychological characteristics. And to alter a complex of buildings designed for strict military education into a complex suitable for university and its students. In order to achieve the said objective the interventions carried (for a renewed relationship) out on existing blocks are:

- opening of the buildings towards the outside and towards urban fabric and the landscape through a partial demolition of the C-shaped buildings. These buildings now become slab and linear components thus letting the green in and creating courtyards for students and the campus environment.

- through partial demolition a fragmentation of the site is done for an open, flexible and welcoming identity with mediterranean quality.

- vertical cuts made in order to allow greater amount of light to interior. This was done in correspondence



Image: View of Bligny Barracks in Savona (before intervention), Source: <https://trsfolgore.myblog.it>

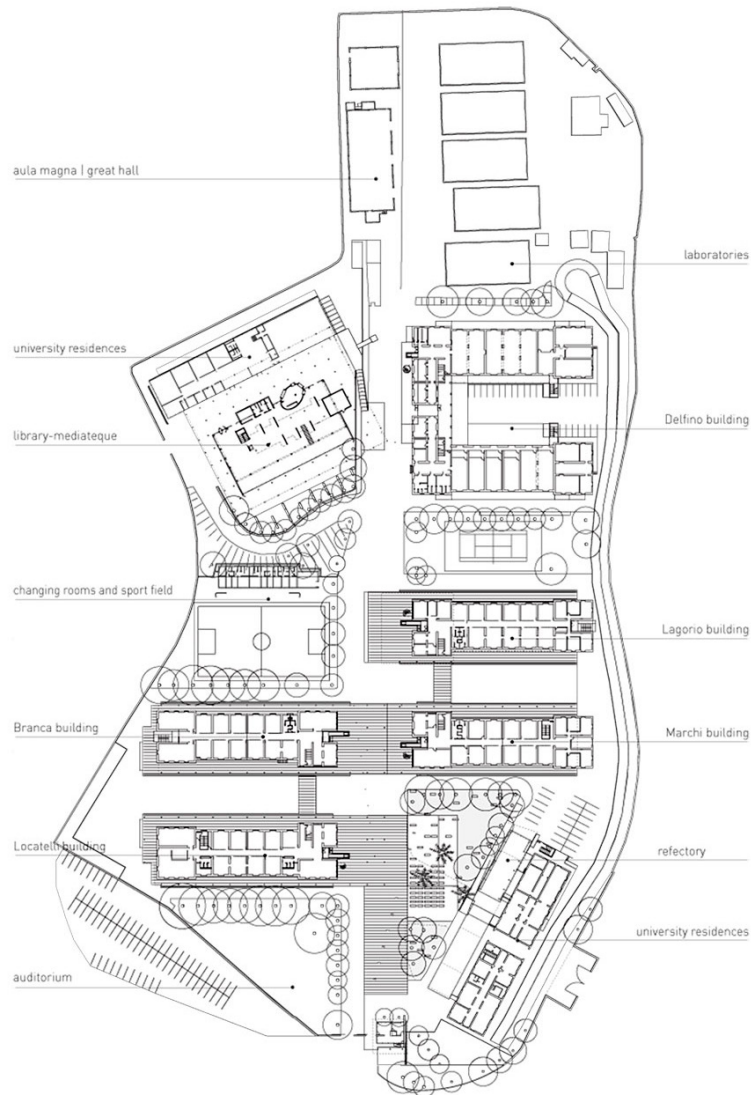


Image: Master Plan - Former Bligny Barracks
Source: <https://www.atelierfemia.com/it/2007/12/campus-universitario-bligny/>

with small existing opening.

- enhancement of the natural characteristics of the place with respect to new function. This is achieved by large glass openings protected by brise-soleil that covers the building blocks of the campus.

- The existing vegetation of the complex which once had opaque and deaf relationship has been transformed into places of activity and ex-

changes. The partial demolition and brise-soleil has helped in this greatly.

- The closed dormitories have been converted into open and bright spaces now.

- Large wooden decks, gardens, sports spaces, places for outdoor shows and quiet study environment signifies the importance of open spaces due to design interventions.



Image: University Campus and Training Center (brise-soleil for radiation control), Source: <https://www.atelier-femia.com/>

- slightly raised larch stave flooring laid to regularize the paths and create communication spaces.

- Lastly, open public spaces provided in the campus assists in fostering productive and cultural environment especially for training places such as this university campus and training center where various people come together.

Aforsaid interventions help the project in transforming the former regimented image into an open interactive environment.

8.4 Santa Marta Barracks, Verona

The asset is located in the southern area of Veronetta district in Verona (Italy). The neighborhood is considered one of the oldest in Verona and is located in the area near to the east near the historic center. The primary intent of the recovery was to provide useful functions of social life, sustain-



able urban welfare and social inclusion. The complex of the former military asset includes 'Silos di Levante', 'Casa del Capitano' and 'Guardiania'. The intervention relates to restoration and functional recovery of the buildings as they have high historical and architectural value.

Completed in 2015 with the restoration, Studio Carmassi with ISP and IUAV Studi e Progetti have completed the conversion of the old building, formerly of military use, into a new study center for the University of Verona.

Image: University Campus and Training Center (Outdoor Spaces), Source: <https://www.masteromt.unige.it/>

On a more urban scale, the former Austrian military complex, which was afterwards utilized as a storage by the Italian army, was converted into a “open” university system, with labs, classrooms, and offices spread over the building’s many floors. The project’s site is on the eastern outskirts of Verona, among a number of other university buildings and two additional university buildings that were once part of a military complex, one of which is now used for university purposes.

It was built by the Austrians between 1863 and 1865. A church and the adjoining monastery stood already



Image: Santa Marta Barrack (Bakery), Verona
Source: <https://architettiverona.it/progetti/a-lezione-di-architettura/>

starting from the 13th century in the area.

Cleaning the wall surfaces, revealing the original texture that had been hidden under the plaster facing, and restoring the vaulted structures and the timber system of covering were all part of the restoration and consolidation operations on the buildings, which were completely conserved.

.....
“...cleaning the wall surfaces, revealing the original texture that had been hidden under the plaster facing, and restoring the vaulted structures etc. were all part of the restoration and consolidation operations...”
.....

Recovery mainly aimed to preserve the original Austrian project. The architectural project, in fact, aimed at satisfying the different functions required for the new use by making use of many glass partitions (both inter-

nal and as roofing of the courtyards) to ensure adequate light entry and to increase the thermal and acoustic efficiency of the environments.

The spaces are very large , sometimes difficult to rethink in a completely different use , but the classrooms and study areas for the students are very well organized, as is the beautiful library in the attic. Even the teachers' studios, scattered over the various floors, are the result of a laborious partitioning that

had to deal with the existing arches and sizes. Shown here are couple of images of the recovery of disposed asset. In addition to this, accessory spaces, staircases, lifts and services were built inside an independent, rectangular area.

.....
“... interventions include the use of many glass partitions for roofs of courtyads and interior for natural



Image: Study Area (Santa Marta Barracks, Verona)
Source: <https://architettiverona.it/progetti/a-lezione-di-architettura/>



Image: Atrium of Santa Marta Barrack (Bakery), Verona
Source: <https://architettiverona.it/progetti/a-lezione-di-architettura/>

light. Thermal and acoustic are were under consideration for energy efficiency and better quality environment...”

.....

8.5 Former Perrone Barracks, Novara

The disused asset of the former Perrone barracks is also converted into a university campus. The project of the new University Campus of Novara, with the reuse of the buildings of the former ‘Perrone’ barracks, represents a significant example of regeneration. It is located on the edge of the historic center of Novara. As a whole, the Campus project pursues an approach based on opening up an “enclosed area” – formally established by the military encampment – to gradual and mutual forms of exchange with the city. The asset comprises of multiple building blocks. As intervention this characteristic has been to integrate

further with the urban fabric, thus enabling a place for interdisciplinary exchange between students, teachers and citizens. The outermost part of the asset is designed with spaces for public. While internally and concentrically a semi-public and private area is provided.

The complex features typical military architectural characteristics, specifically terrace-style buildings, in an original layout where the main buildings were arranged in a C-shaped plan around a large open training ground. Later after the second world war, internal extensions were made



Image: Former Perrone Barracks in Novara after interventions

Source: <https://www.promozioneacciaio.it>

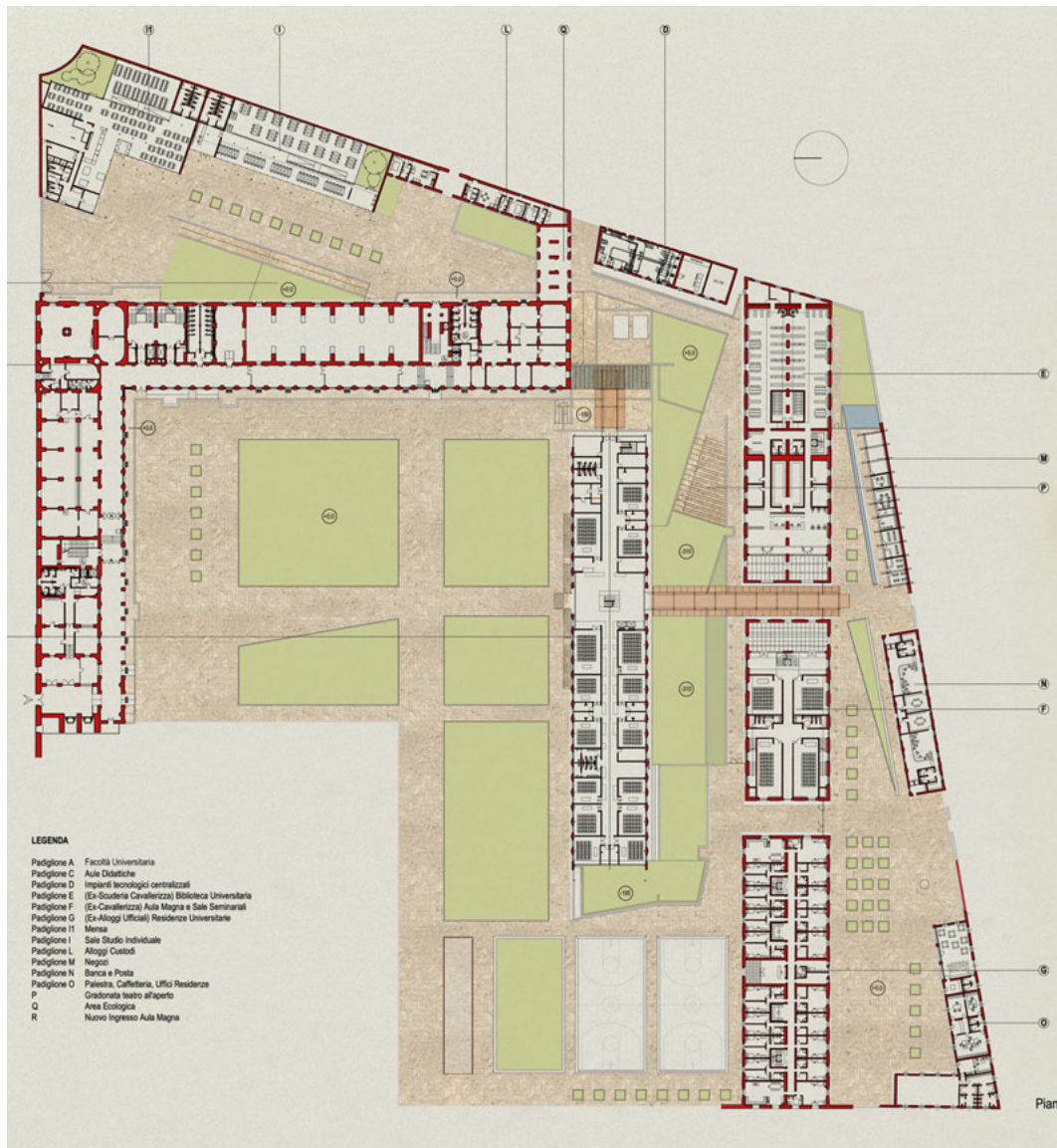


Image: Master Plan of the Campus showing different Pavillions, Source:<https://www.promozioneacciaio.it>



Image: Former Perrone Barracks in Novara after interventions, Source:<https://www.promozioneacciaio.it>

(due to damage) within the enclosed military area.

The proposal employs the concept of “reversibility”. The new steel structural components honor the old one building components. The programs inserted in the complex are; library, lecture halls, auditorium, students accommodation, and class rooms.

The interventions are done in such a way that the external skin partially recalls the architectural features of the per-existing building. The longer sides of the wall (refer picture in this section) are historical while the smaller are inserted with gull-height glass windows.

The structural interventions (choice of steel structural framing) has assisted in creating an architecturally characterized flexible space. It allow the easy transform-ability of the classroom.

.....
“... as intervention this characteristic has been to inte-

grate further with the urban fabric, thus enabling a place for interdisciplinary exchange between students, teachers and citizens ...”
.....

The material selection of for the new construction used is metal mostly. The dry built interventions include structural framing of metal, fiber cement panels for external cladding and plaster boards for internal partitions.

Pavilions ‘C’ (refer master plan image in the section) is conected with other historic buildings by means of pedestrian walk ways. These walkways are covered in steel and glass. The design of the entire project was to make it energy efficient. Therefore insulation with high thickness, and glazing of high thermal performance is used. In addition to this, enhancing natural light in the indoor spaces and control of solar radiations were considered.



Image: Internal Corridors of Campus after interventions, Source: <https://manens-tifs.it/university-campus-novara/>

Part 4: The Recovery of Citadel

Chapter 9

Site Survey

9.1 SITE SURVEY

Overview

The chapter deals with the survey of the site i.e. Citadel of Mondovi with Caserma G. Galliano. It provides the existing architectural layout of the site including indoor and outdoor spaces. As mentioned earlier, the citadel is a multi-building complex which means it has building edifices scattered inside the citadel. In this part, all of the information regarding these blocks will be provided individually so that the reader and viewer will get a comprehensive overview of the edifices. The details of the building blocks will be mentioned alongside the descriptions including floor areas, number of floors and layouts of the existing structures.

In the same section, the architectural features of each will be highlighted with constructional details. This will give an understanding of the construction techniques employed while building the place. Not to mention of the knowledge it will

provide during design phase, as the priority will be to keep the same construction techniques. In addition to this, the chapter will comprise of the existing facade studies. It will be further used for the purpose of the 'Decay Analysis' of the facades. And consequently the strategies for interventions, in order to tackle the decay process of the fabrics.

.....
“...chapter deals with architectural survey of site, architectural features, facades and decay analysis, for the final phase of design...”
.....

1. EXISTING CONDITIONS

Description

The citadel on the southern tip of the Mondovi piazza has nine (09) edifices. These are scattered inside an irregular geometrical shape.



Image: Map of Mondovi Piazza

Source: By author from GIS (information taken from Open Street Map)

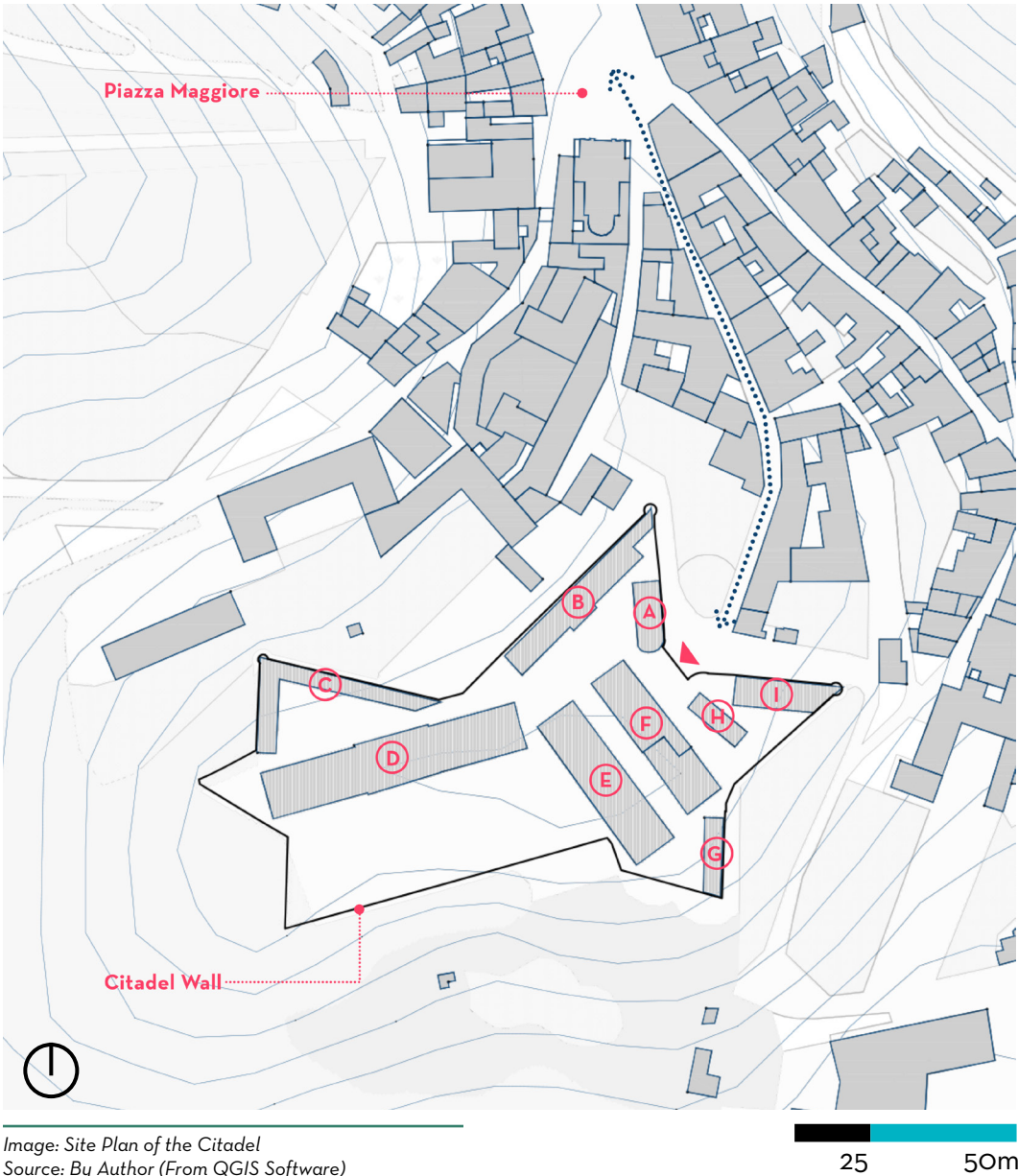
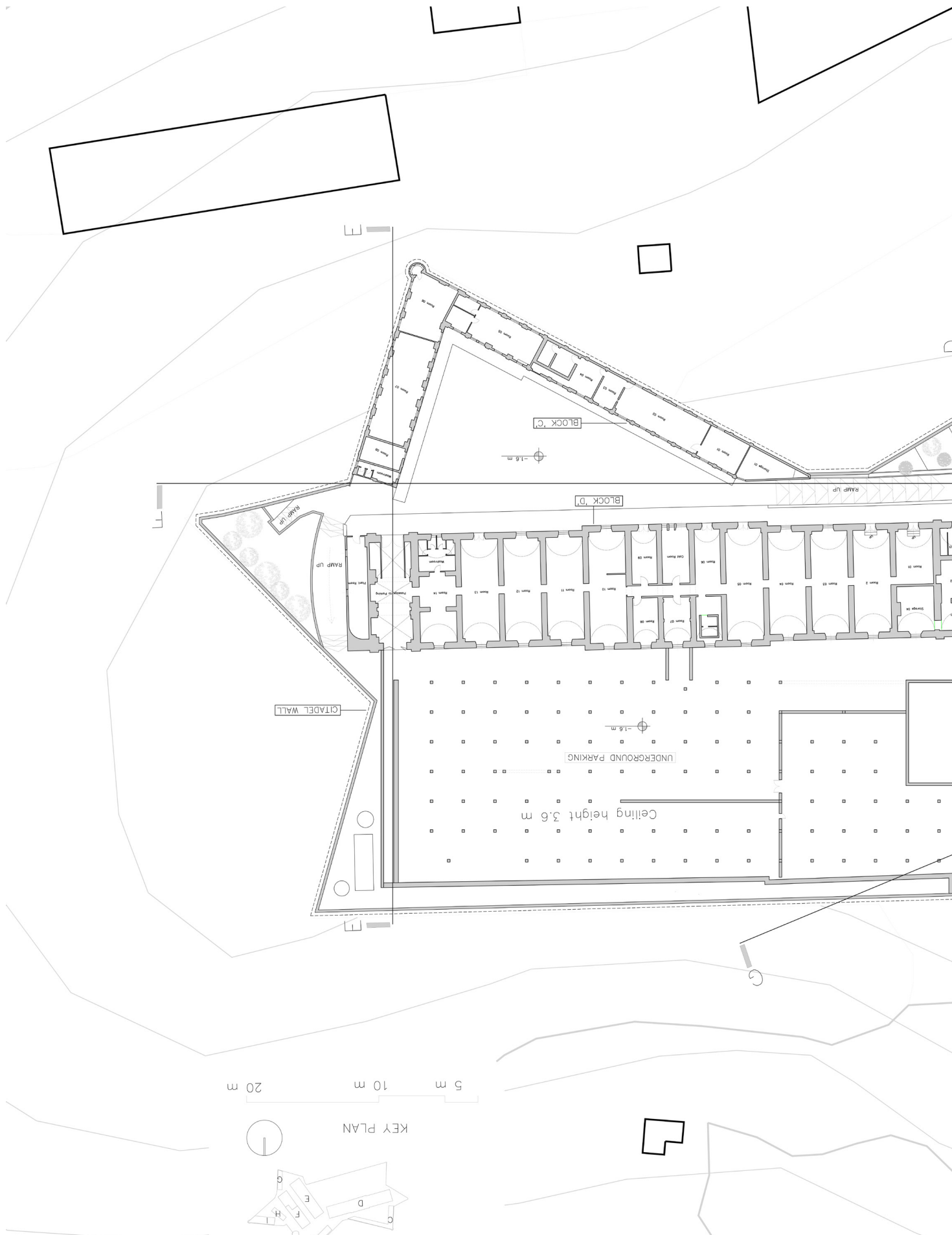
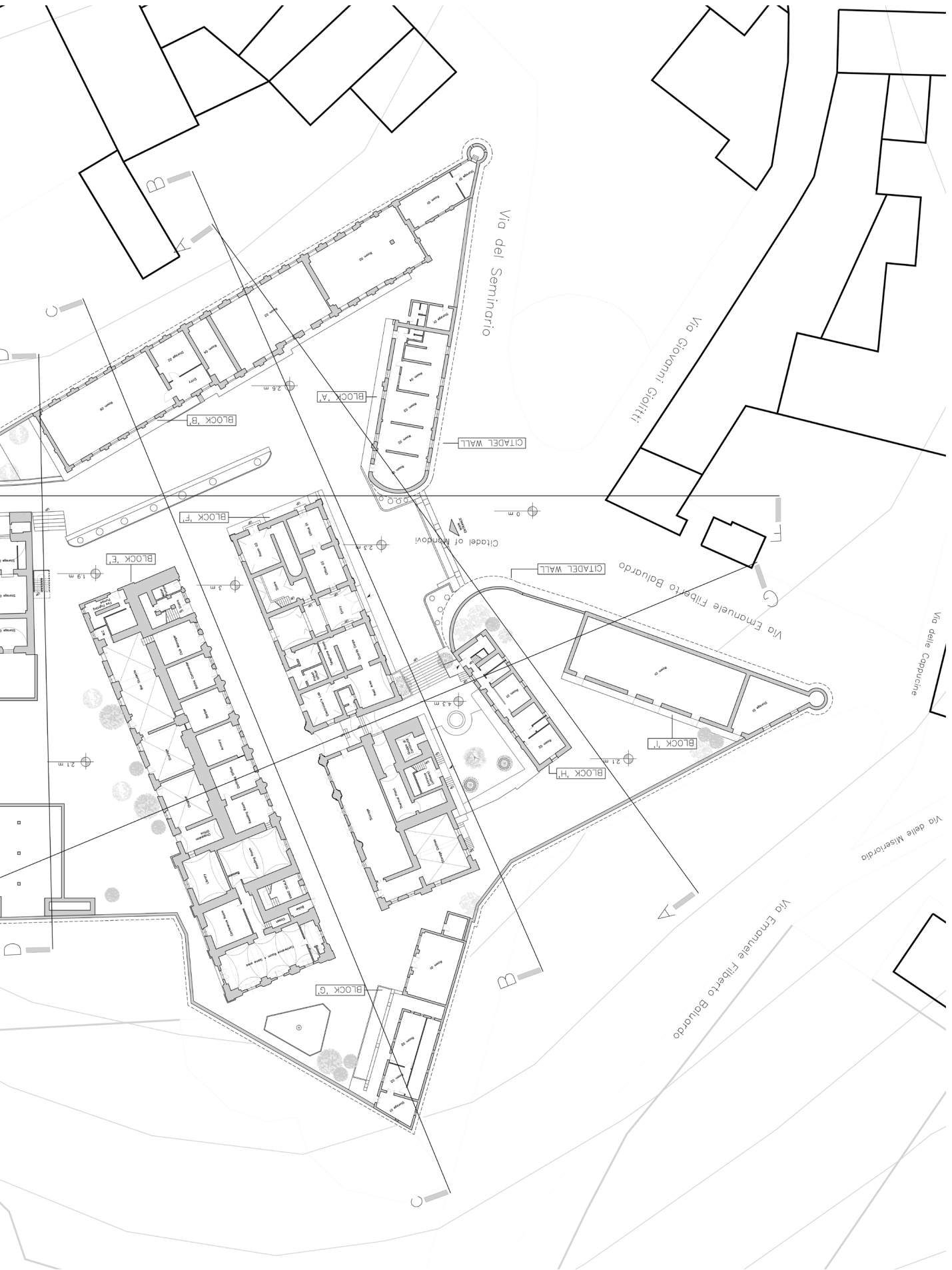


Image: Site Plan of the Citadel
Source: By Author (From QGIS Software)

Ground Floor Layout of Citadel of Mondovi Piazza (with all blocks)





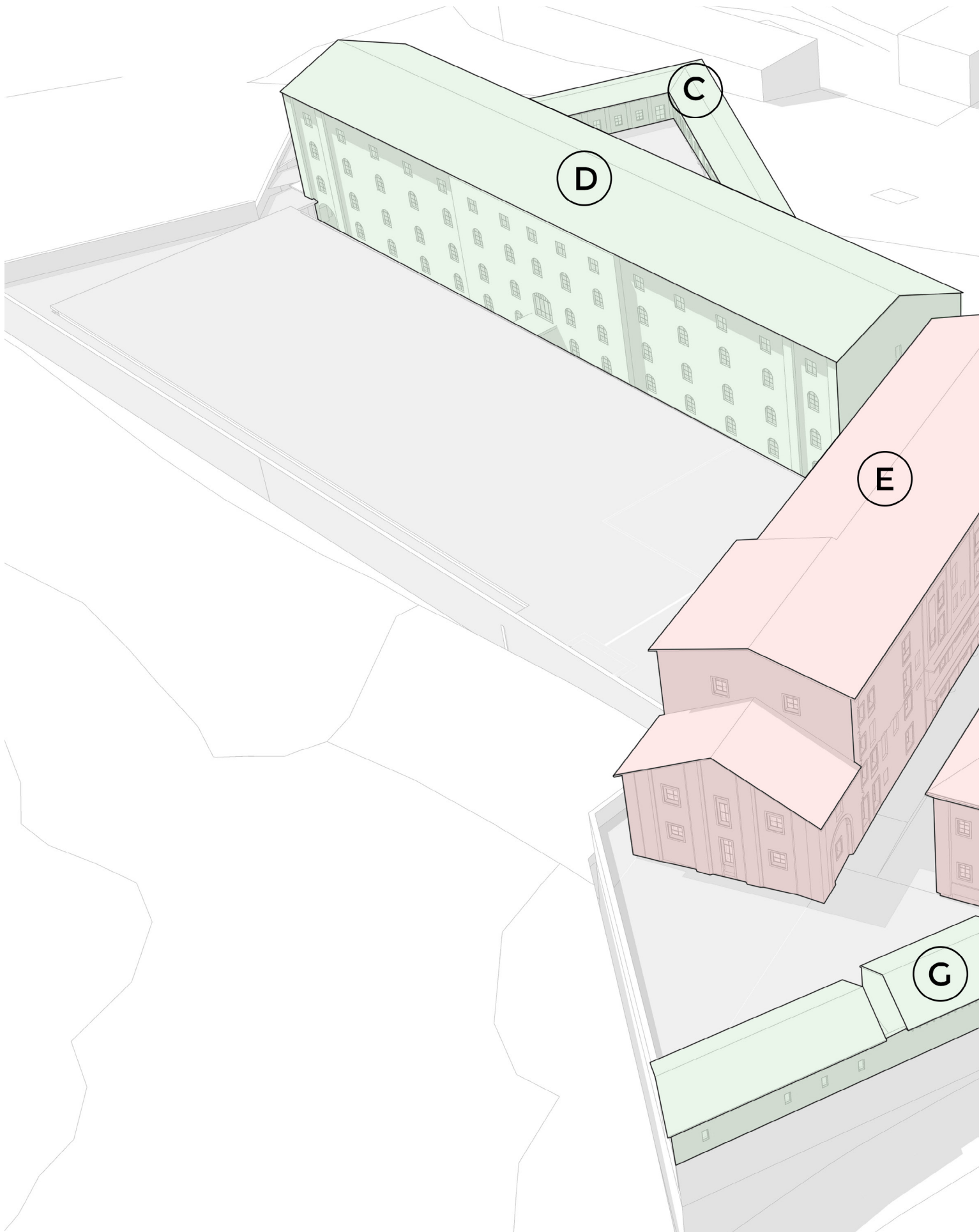


Image: Diagrammatic Blocks of Citadel of Mondovi, Source: By Author

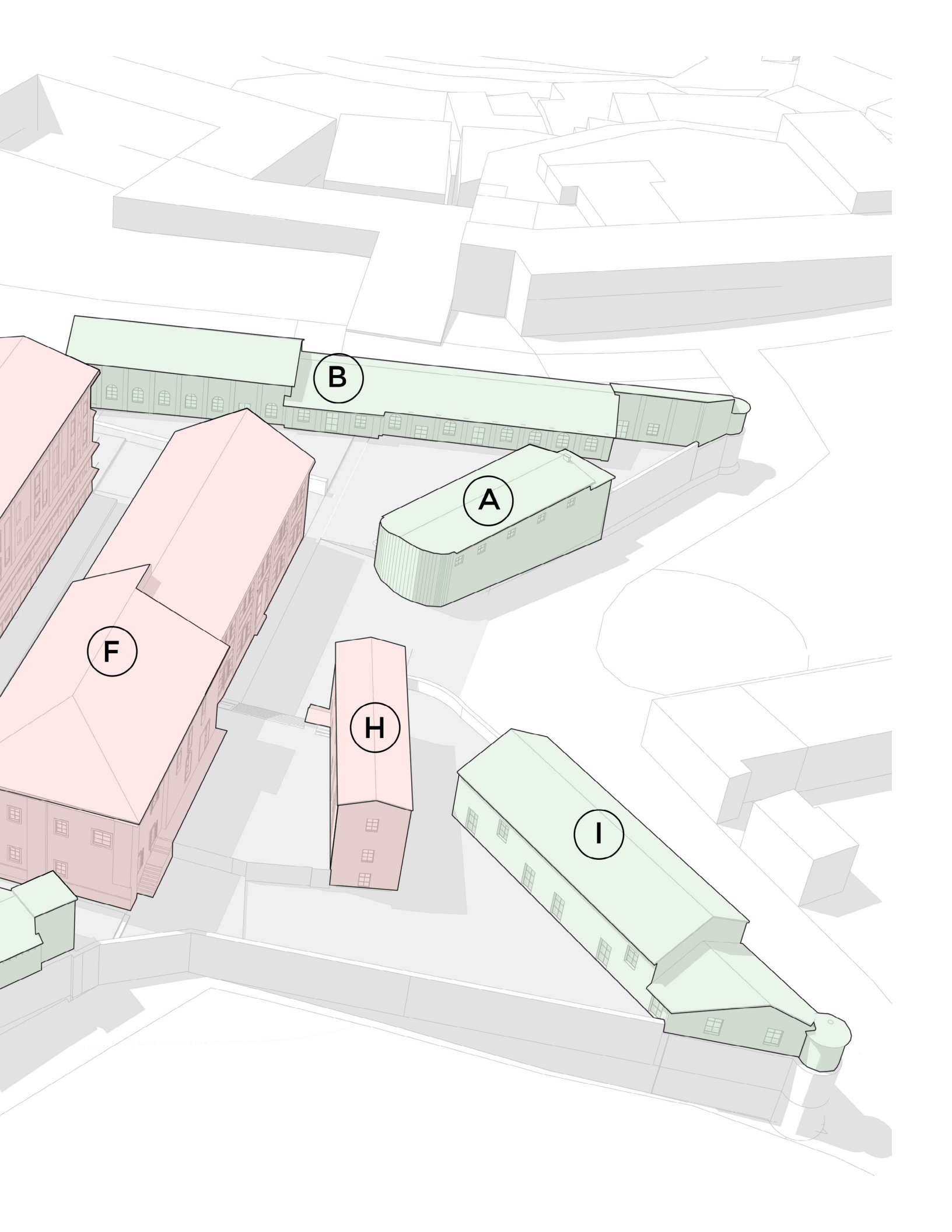




Image: Citadel of Mondovì
Source: <https://www.unionemonregalese.it/>



The estimated area inside the citadel is 15670 square meters (mq). The citadel is accessed by the main entry metal gate located on the north eastern side (precisely). The vehicular and pedestrian road which leads to entry gate of the citadel is connected to the center of the Mondovi Piazza i.e. Piazza Maggiore. The citadel has vehicular parking facility on both sides of the entry gate (refer piazza parking facility discussed in earlier chapter). But the number of stalls for vehicular parking are relatively less. It hardly provides space for 15 cars.

.....
“...estimated area of the citadel is 15670 square meters. It has nine blocks inside starting in anti-clockwise direction from block ‘A’ to block ‘I’ in the eastern side of the citadel...”
.....

The citadel has nine blocks named in anti-clockwise direction (for the sake of convenience). It starts with a small building block (Block A) next to the

entry gate on the northern side. And the sequence goes unto ‘I’ block on the eastern side of the citadel (next to road which extends to ‘Piazza d’Armi’ and ‘Vicoforte’.

The citadel is on an elevated position as compared to rest of the site. The areas around its perimeter is easily viewable specially on the southern side, as the boundary wall is of lesser height. And the distant Alp Mountains are easily viewable in the backdrop of Mondovi.

The outdoor space of the citadel has also multiple parts as a result of the placement of the building edifices. The largest outdoor space with an area of 3850 sqm exists on the southern side enclosed between the block ‘D’ and block ‘E’. There is an underground parking facility under the open space, supported by the concrete columns and slab.

The other parts of the outdoor space are located between other building blocks, but most of them are of relatively smaller size, suitable for circu-

lation. It is to be noticed that space between the block 'E' and block 'F' is enough to host small scale outdoor activities (the space used to be part of the cathedral's cloister and apse). Comparatively, the block D, E, and F are larger (greater floor area) as the rest have only ground floor.

2. BUILDING BLOCKS INSIDE THE CITADEL

A. BLOCK 'A'

Construction Date: 1877-1904
 Total Area: 233 sqm (approx.)
 Number of Floors: 01
 Current Use: Offices
 Construction Material: Brick
 Exterior Material: Plaster
 Dimension: 28.5 m x 8.5 m (approx.)
 Height: 4.8 m (approx.)

The exact construction date of the block 'A' is unknown but it can be deduced from the documents (see transformation of the Caserma Giuseppe Galliano) that it was a latter

addition. The block is absent in the 'Catasto 1877'. But the other major parts of the citadel are present there. But it is noticeable in the 'Catasto 1904' that the block is shown, which gives a rough idea about the addition date (though not the exact date).

.....
 "... the exact date of construction is not known but the block is absent in 'Catasto 1877', but then noticeable in 'Catasto 1904'..."

The scale of the block is relatively



Image: Block 'A' (Exterior View)
 Source: By Author



small (as can be seen). In fact, it is among those building blocks which are smaller (others being block G and H). The block has only single floor i.e. the ground floor. Currently, all of the citadel's block are empty except this one, which has some offices occupied by state military personal.

The block is constructed with the brick material and the walls are load bearing. The walls are plastered with cement and sand and are painted white.

The floor plan of the block is shown on the image with key plan. As it is

Image Top: Block 'A' (From Street)

Image Bottom: Block 'B' (Facade)

Source: By Author

noticeable it has small compartments used for different purpose currently.

B. BLOCK 'B'

Construction Date: 1877-1904

Total Area: 710 sqm (approx.)

Number of Floors: 01

Current Use: Abandoned

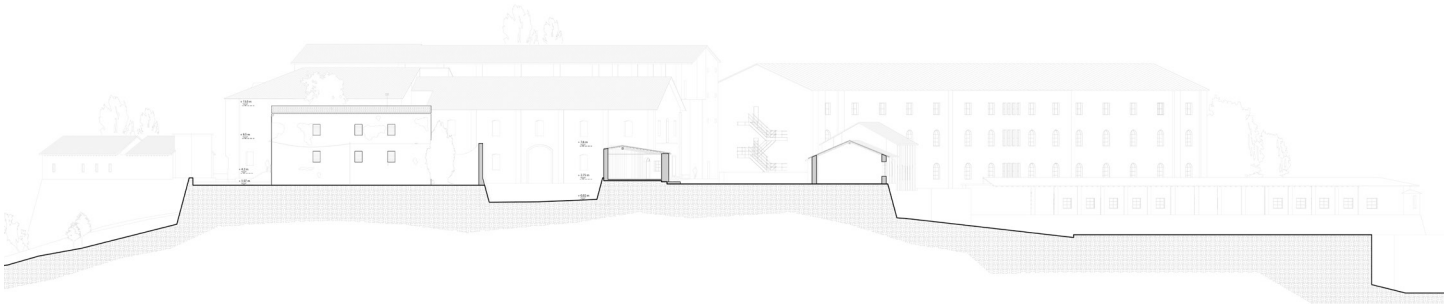
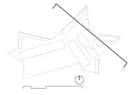
Construction Material: Brick

Exterior Material: Plaster

Dimension: 74.4 m x 10.3 m (approx.)

Height: 9 m - 5.8 m (approx.)





Just like block 'A', this block has been added later. It was addition around 1900s (as it is evident from land registers). The block B is adjacent to block A, facing one facade to the citadel while the other longitudinal faces the Breo of Mondovi. It has rectangular elongated geometry with different partitions inside the building.

The structure of the roof is wooden and is cladded with conventional clay roof tiles. Just like block 'A' the Wall on the outer side is merged with the citadel wall and is constructed out of brick material. But plaster with cement and painted later. The access for the block is from the citadel as the back side has substantial differ-

ence in the level, thus making it difficult to access. It was the very factor which helped converting it into the citadel in 16th century.

The block has only single floor i.e. ground floor. Despite this, it blocks the view of Breo thus making the place an inward looking area.

C. BLOCK 'C'

Construction Date: 1877 - 1904

Total Area: 55. sqm (approx.)

Number of Floors: 01

Current Use: Abandoned

Construction Material: Brick

Image: Section AA - Refer Plan

Source: By Author

Exterior Material: Plaster

Dimension:

Height: 5.2 m (approx.)

Block 'C' is a two arm irregular geometrical form with a sharp corner pointed outwards. It is a single story block on the western side of the citadel, one face facing the north and the other side facing the west. The outer walls of the block are extension of citadel boundary wall, which are made up of bricks and are load bearing structures.

The structure is empty thus an abandoned structure in the citadel. The



Image: Block 'C' (Exterior View)

Source: By Author

roof is made of wooden rafters, batons and clay roof tiles. The block blocks the view of the Mondovi thus making the space next to it an introvert space.

The western side of the block 'C' has a small pointed elevated space, which offers a phenomenal view of the lower Mondovi and towards Vicoforte. It is accessed via stairs attached with block 'D' of the citadel.

D. BLOCK 'D'

Construction Date: 1877 - 1904

Total Area: 6800 sqm (approx.)

Number of Floors: 01

Current Use: Abandoned

Construction Material: Brick, Stone

Exterior Material: Plaster

Dimension: 96.5 m x 18 m (approx.)

Height: 20.5 (approx.)

The block 'D' is located on the western side of the citadel. It is noteworthy that the space occupied by the



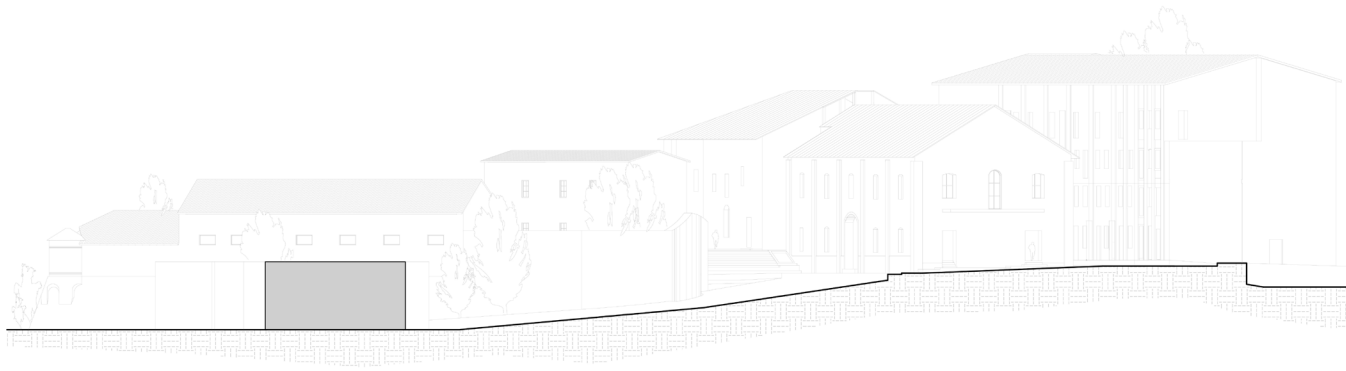
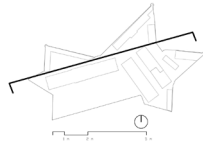
block D, block C and the space between them was part of the S. Domenic Church and monastery. These entities were destroyed in 1573 in order to make space for the bastions in the citadel. This is evident in the drawing by engineer Ferrante Vitelli (discussed in earlier chapter - Caserma Giuseppe Galliano). And the bastions are noticeable (with respective names) in the survey of Michel Angelo Morello. In addition to this, there is a small scale structure present in the position of block 'D' (evident is same document and another represented of citadel done in 1751 discussed earlier) but information is not available

about the structure.

Block 'D' is a four (04) story high structure with the largest floor area in the whole citadel. It is oriented in east-west direction but the longitudinal facades face north-south direction. The southern facade particularly provides beautiful view of the Alps mountains with the landscape in the foreground.

The building is accessed from the northern facade. On the ground floor, at the western end, a tunnel like structure leads to the parking area, which is located under the huge outdoor open space (next to block D). The structure of the parking is made of the concrete with columns and beams. And there is an open void adjacent to the block D which allows sunlight for the parking area. There are three bridge connections on the first floor, to connect it to open space on the southern side. The parking space is blighted with wild flora. In addition to this, a metal stair on the eastern corner of the block D leads to ground floor (soil

Image: Block 'D' (Exterior View- Southern Elevation)
Source: By Author



level) from the parking area. It must be remembered that the ground level for the block D and the adjacent parking area is substantially lower as compared to the levels on the other areas of the citadel. Another metal staircase has been added to access the floors of this block on the eastern facade, most probably for emergency exit.

The construction material of the block D is brick with a wooden and

clay tile roof. The indoor spaces are partitioned into multiple areas, mostly regular geometries. It has a repetitive facade features mostly covered with windows on the upper floors.

The block D, the parking facility adjacent to it and the outdoor space are lying empty and thus abundant.

Image: Cross Section Citadel showing Block 'D'
(Section FF - Refer Plan)
Source: By Author



E. BLOCK 'E'

Construction Date: In different eras with additions and destruction (Around 15th century, 1574 and 1664)

Total Area: 3950 sqm (approx.)

Number of Floors: 04

Current Use: Abandoned

Construction Material: Brick, Stone

Exterior Material: Plaster

Dimension: 62.5 m x 15 m (approx.)

Height: 17.5 m (approx.)

Block 'E' and block 'F' are the blocks of the citadel which are the remnants of the cathedral and subsequent transformation. As long as block 'E' is concerned, the place on the eastern half & side (towards block F) was part of the S. Donato cathedral . It used to be part of its western aisle of the cathedral until 1574 when billets were made inside the aisle with demolish of roof over the nave of the cathedral.

Site Survey

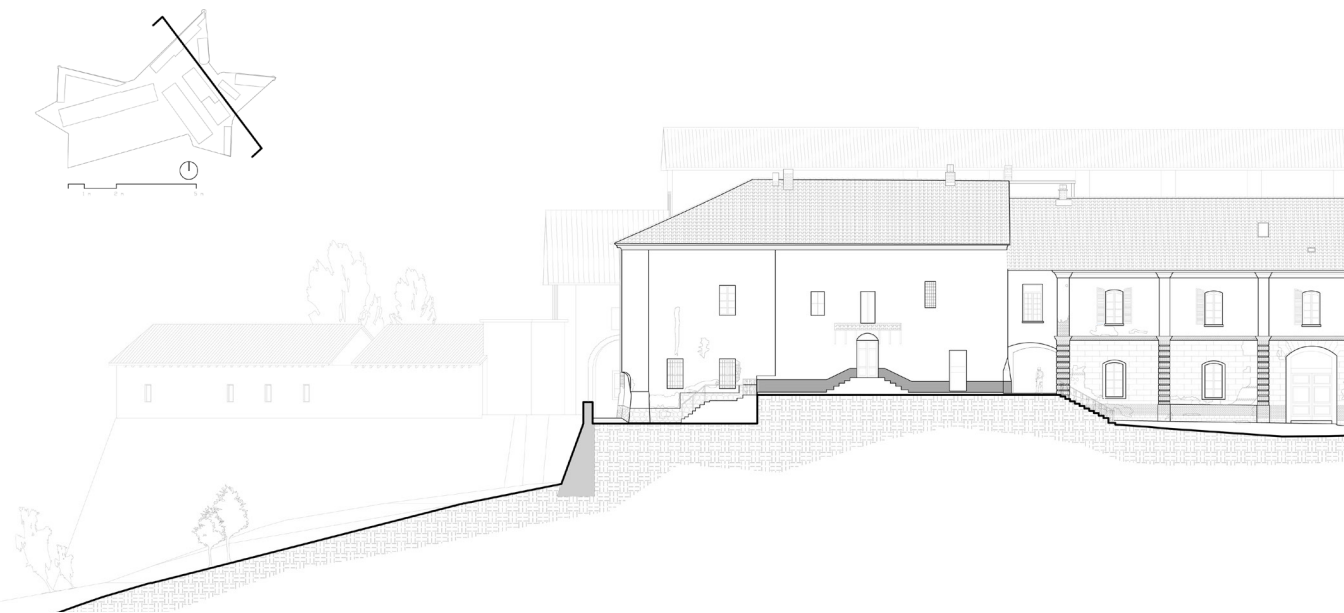
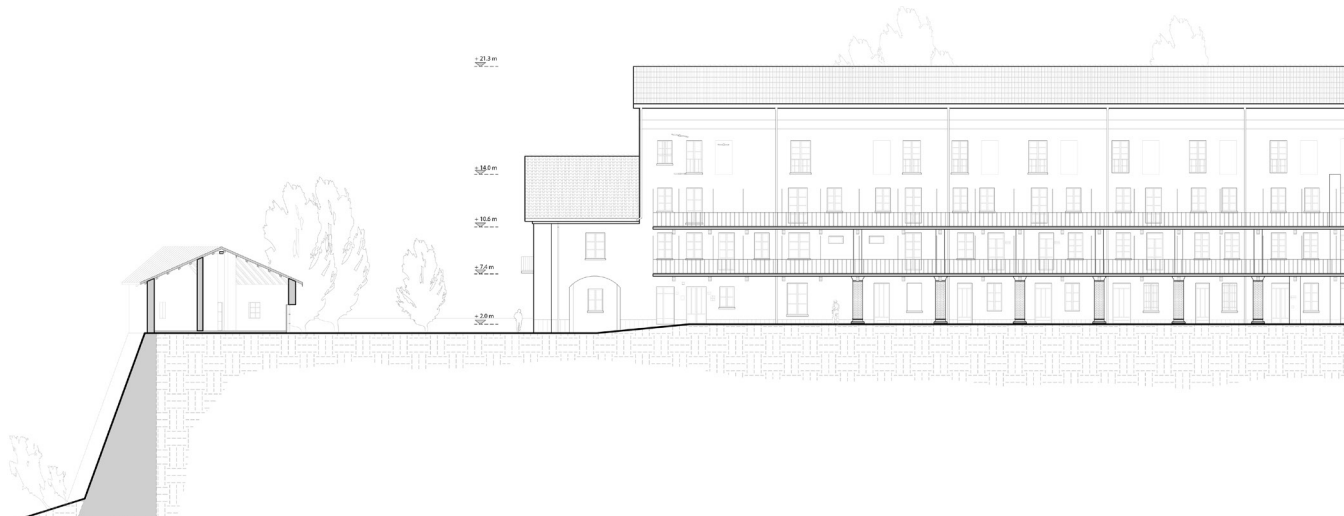
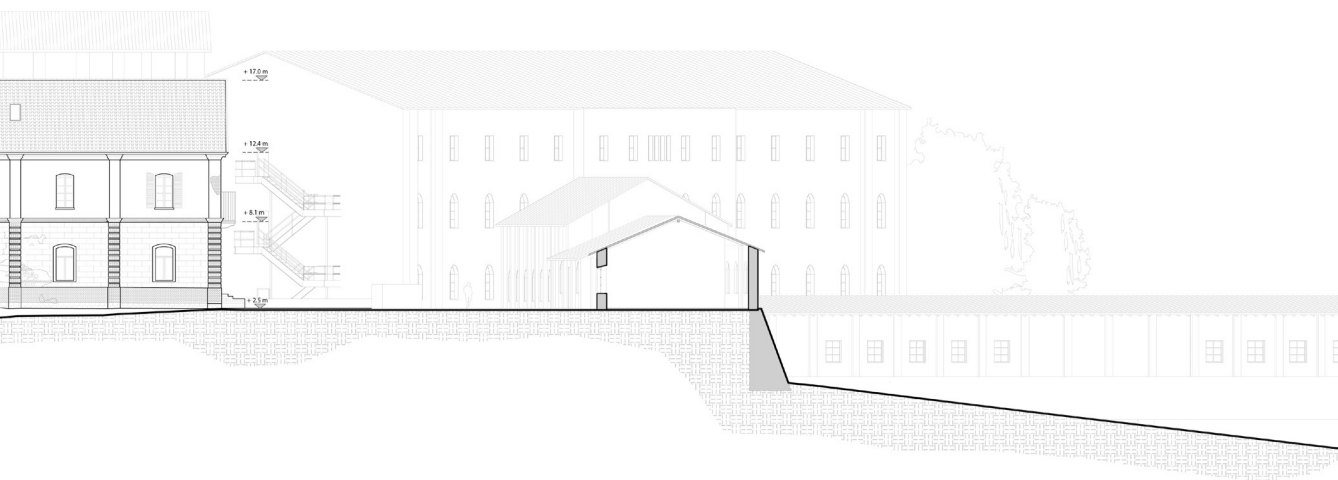
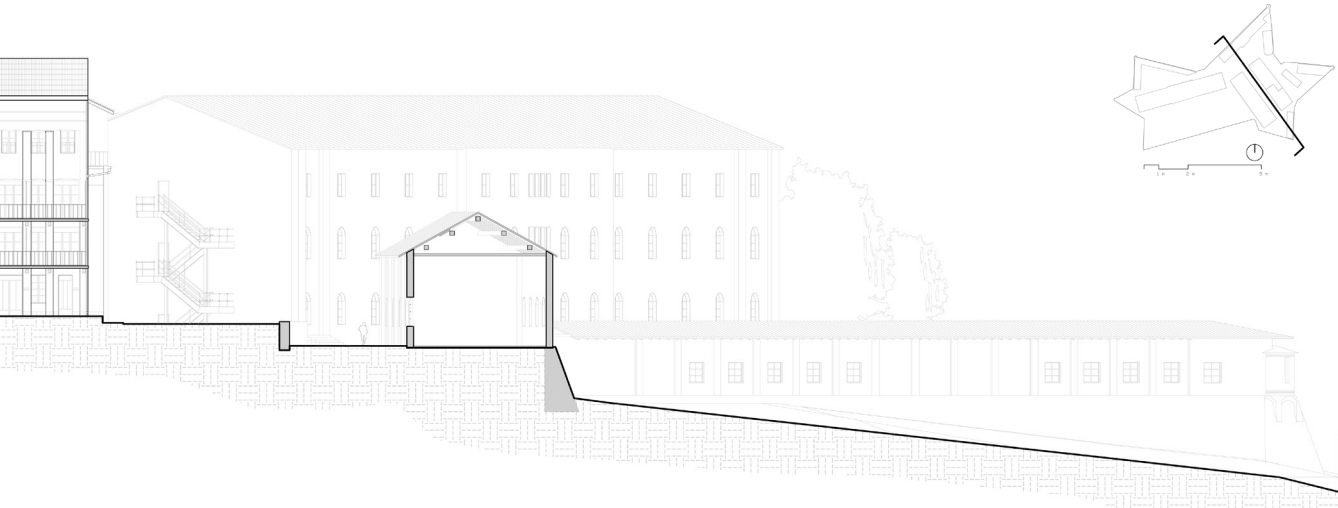


Image (Top): Section CC showing Block 'E'
Image (Bottom): Section BB showing Block 'F'
Section FF - Refer Plan
Source: By Author





The other part (western half) of the same block was result of a design by Michelangelo Garove, who added a building on the west side of the S. Donato Cathedral in 1664 (is evident in the survey of 1685 by Michelangelo Morello) . In addition to this billets in transept were restored. Later, when the aps of the cathedral was demolished before 1877 (evident in 'Catasto 1877) the two fabric appeared as a result. One on the western side (Block E) and other on eastern side (Block F).

It is a four (04) story high structure made up of brick, flooring with ce-

Image: Block 'E' - Facade
Image (Bottom): Block 'F' - Facade
Source: By Author

ment plaster. The building has partitions inside, creating spaces for different uses. The roof of the block is made up of wood and the clay tiles like rest of the blocks in the citadel.

F. BLOCK 'F'

Construction Date: Varies
Total Area: 1740 sqm (approx.)
Number of Floors: 02
Current Use: Abandoned
Construction Material: Brick, Stone
Exterior Material: Plaster
Dimension: 60 m x 14.5 m (approx.)



Ceiling Height:

Block 'F' used to be part of the medieval cathedral and it comprises of its remnants to the date, easily noticeable inside and through facade columns. The side which faces the block 'E' used to be the eastern aisle of the cathedral. The other half which is (part near the entry gate) was added later which is evident in the 'Catasto 1904'.

This block is the only block which has remnants of all phases of historical transformation. From medieval church, cathedral, barrack before 1786 and barracks after that.

The block is made up of brick as material. The floor is plastered with cement on ground and first floor. The attic of the block is accessible with stairs and the vaults in attic are exposed. The roof of this block is also made up of wooden rafters, battens and clay tiles. It must be remembered that the roof is a later addition to this block, as initially it had different inclination.

The block is accessible from different side. It has multiple entries for different rooms on the ground floor.

G. BLOCK 'G'

Construction Date: 1877 - 1904

Total Area: 190 sqm (approx.)

Number of Floors: 01

Current Use: Abandoned

Construction Material: Brick, Conc.

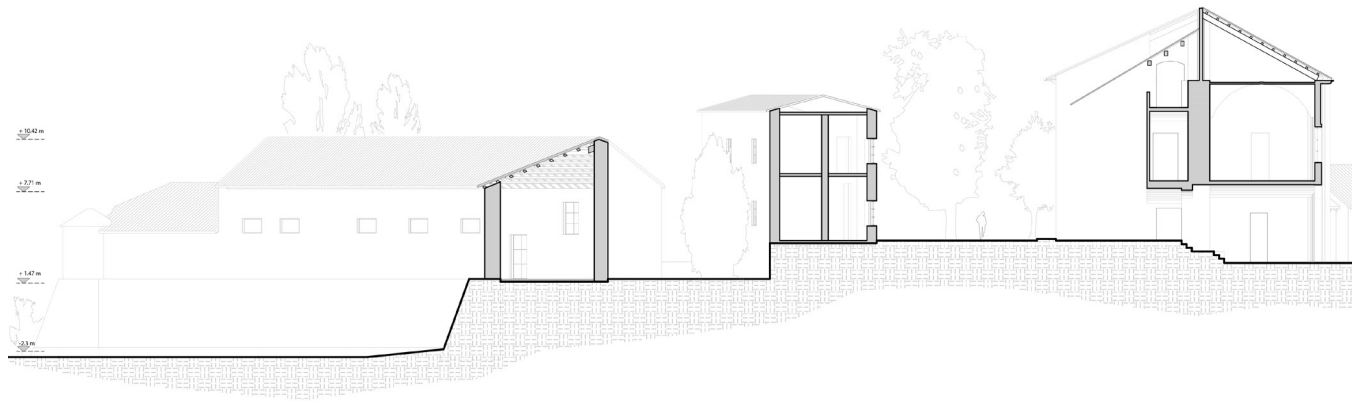
Exterior Material: Plaster

Dimension: 32 m x 7 m (approx.)



Image: Block 'G' - Facade

Source: By Author



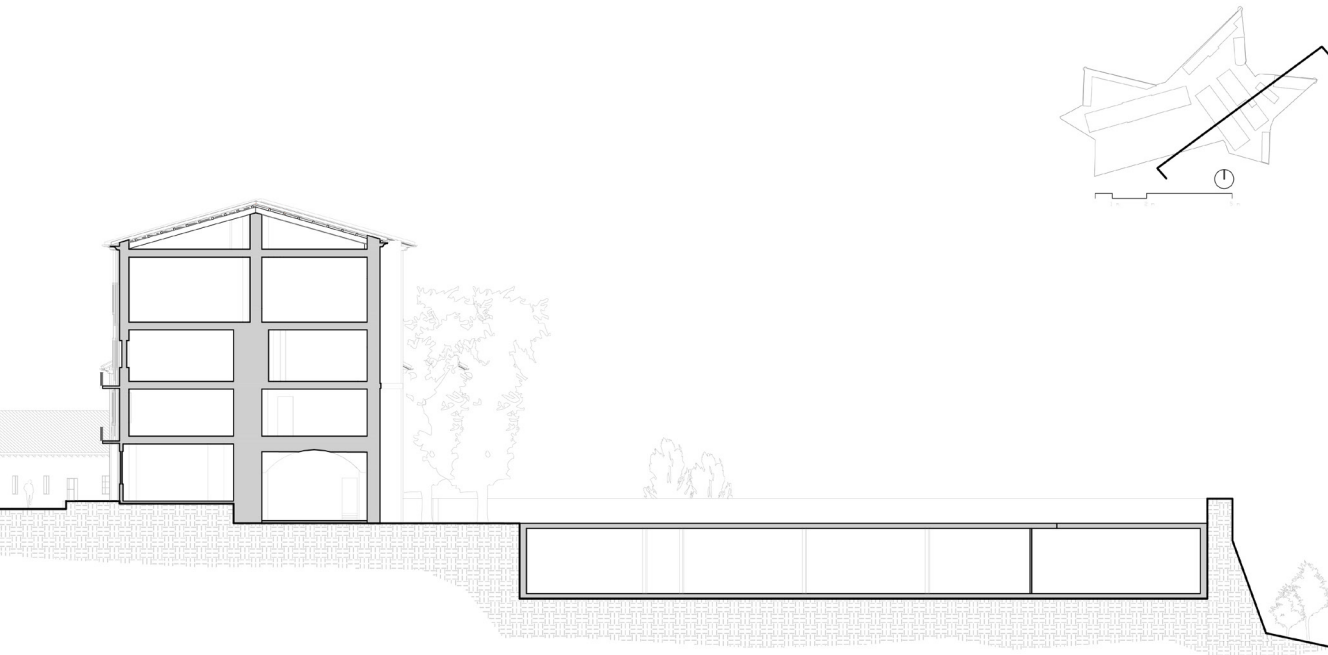
Height: 5.8 m

The block 'G' is located on the pointed bastion near to the Piazza d'Armi. One of the longitudinal wall of the block G is merged with the citadel wall while the other faces the citadel. It is a single floor structure made up of bricks. The roof of the block G is made up of wooden rafters, bat-

tons and the clay tiles.

As long as the history of the block is concerned, it is a latter addition which is evident from the documents. Just like block A,B and C, this is absent in 'Catasto 1877' but noticeable in 'Catasto 1904'. Which means it has been added after 1877. As is evident from the floor area, it is a small scale intervention.

*Image: Cross Section of Citadel showing Block E, F, H and Block I
(Section GG- Refer Plan)
Source: By Author*



H. BLOCK 'H'

Construction Date: 1497 - 1507

Total Area: 260 sqm (approx.)

Number of Floors: 02

Current Use: Abandoned

Construction Material: Brick

Exterior Material: Plaster

Dimension: 21.5 m x 6 m (approx.)

Height: 10.5 m (approx.)

Though there are doubts about block 'H' whether it is old or new because there is a same structure in the same place in the documents. The structure can be seen in document 'Citadel of Mondovi' by Ferrante Vitelli (1573), which the then was a whole different quarter attached to the cathedral. It was used for residence of the priest and later utilized



as captain's house.

The building is also noticeable in the painting of Amedeo Cignaroli (*Veduta di Mondovi*) which is discussed already in the earlier topic about caserma. It used to be previously a double story quarter (see Isnardi's Survey) but currently it has only one floor.

The construction material of the fabric is brick and the roof is wooden with the clay tiles. It is one of the smallest block inside the citadel. There is a fountain outside this block (space between block F and H) which is also evident in old drawings.

Image: Block 'H' - Facade
Source: By Author

The place used to be courtyard for the priest house and captain's house.

The level of the ground at this place is higher than the level near entry gate. It is approached with stairs facing the entry gate area. While on its south-eastern side, there is a retaining wall with more than 1.5 m difference (level of block G). From this side the higher level is accessed with metal stairs.

The views from this block are obstructed by block F, I and the boundary wall, not to mention of flora.

I. BLOCK 'I'

Construction Date: 1877 - 1904

Total Area: 320 sqm (approx.)

Number of Floors: 01

Current Use: Abandoned

Construction Material: Brick

Exterior Material: Plaster

Dimension: 34.5 x 9.5 m (approx.)

Height: 8.3 m (approx.)

The block 'I' is also a latter addition

along with the other block mentioned earlier in the section. It is located on the eastern corner of the citadel, merged with the pointed bastion. The historical bastion is present today and is easily viewable from the road (outside). One of the longitudinal face of the block is merged with the citadel wall. The windows facing the city as high most probably for protective purposes.

The block is only accessed from the citadel only. The interior of the block is partitioned into multiple areas (mostly regular geometries) in order to appropriate it for different functions.

The construction material of the block is brick which is then plaster with cement (later painted white). The roof of the block is made up of wood and clay roof tiles. The structure of the roof is made up of conventional rafters and batons.

This block is also empty and thus abandoned. The open space next to this block is blighted with flora due to continuous negligence.

Image: Block 'I' - Facade
Source: By Author



The place offers no views as is obstructed by the block itself and other blocks. The corner seems one of the most ignored places in citadel.

J. Parking

Construction Date: Unknown
Total Area: 3000 sqm (approx.)
Number of Floors: 01
Current Use: Abandoned
Construction Material: Concrete
Exterior Material: Plaster
Dimension: 91 m x 35 m (approx.)

Height: 3.8 m (approx.)

The parking area of the citadel seems a latter addition as it has been made up of steel reinforcement and concrete (frame structure system). The access to the parking area is through the lower ground floor of block 'D' (shown in the image).

Currently the parking is used a storage place since it provides shelter from the rain and sunlight. While part of the parking area has been converted into large rooms with doors, towards block 'E'.

There are light wells on the perime-



Image (Bottom): Parking Area View

Image (Top): Entrance to Parking via Block D

Source: By Author



ters of the parking (probably left for air circulation and natural light) with metal grating as cover lids.

Previously the parking was connected to the upper ground level (near block 'E') with the help of metal stairs which are absent now. (They were present in initial site visits were absent in later). The parking area is not affected by decay. Except there is huge degree of Incrustation (see decay types) on its ceiling. The reason being the stagnant rain water on the roof of the parking which has also caused surface cracks on roof cover.

9.2 Construction Survey & Architectural Features

Description

The section highlights the prominent and significant architectural features (and their construction survey) in Citadel of Mondovi. These architectural features are crucial in two ways: firstly they are part of the design and are utilized in design phase and secondly they represent the essence (character) of the building. Therefore these features have been added here.

Some of the architectural elements/features included in the section, are the generalized representation of construction techniques employed in the whole citadel. Since it is impossible to show specific detail of every block at specific points therefore it is shown in a generalized way (specifically roof construction method, decorative projection at rain gutter level, etc.)

.....
 “ ... these architectural features are crucial in two ways: firstly, they are part of the design and are utilized in design phase and secondly they represent the essence (character) of the building...”

The construction survey highlights five major architectural features. Firstly it will elaborate types of brick walls existed in the citadel. Secondly, types of vaults which are part of the building blocks. Thirdly, construction of wooden roof system (rafters, batons and tiles). Then 15th century cathedral columns and later types of brick reinforcements employed in the construction of vaults.

A. Wall Types

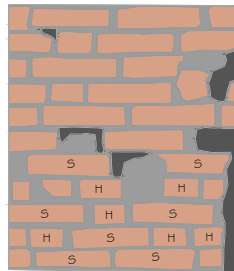
As it has been mentioned and illustrated in the chapter 7 (7.4 Timeline



BRICK MASONRY

The wall generally employs header bond with stretchers at some places. In some places, brick pieces have been inserted in order to increase stability.

Brick Size: 24 x 6 x 11 cm
Joint Pointing: Mortar (Lime Mortar)



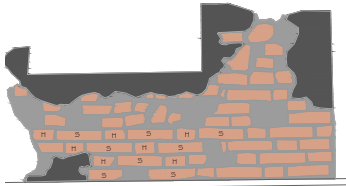
BRICK COURSED WALL

The wall generally employs header & stretcher bond. While in some places, brick pieces have been inserted in order to increase stability.

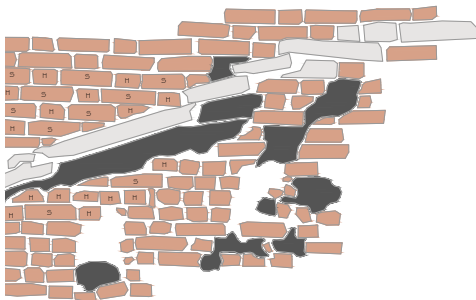
Brick Size: 30 x 7 x 13 cm
Joint Pointing: Mortar (Lime Mortar)



Image: Sample Walls of 15th Century Cathedral
Above: South Facade (Block F)
Below: Attic Tower (Block F)
Source: By Author



BRICK COURSED WALL
The wall generally employs header & stretcher bond. While in some places, brick pieces have been inserted in order to increase stability.
Brick Size: 27 x 7 x 13 cm
Joint Pointing: Mortar (Lime Mortar)



CK COURSED WALL (& ROOF REMNANTS)
wall generally employs header & stretcher bond. While in some places, brick pieces have been inserted in order to increase stability.

Brick Size: 30 x 7 x 13 cm
Joint Pointing: Mortar (Lime Mortar), Concrete



Image: Sample Walls of 15th Century Cathedral
Above: South Facade (Block F)
Below: Attic Block F (Above eastern Aisle of Cathedral)
Source: By Author

of Transformation of S. Donato Cathedral) that the citadel's building block belong to different periods of time which is evident in the construction methods and construction material. Previously, it has been shown in plans (maps) but this is also evident in the walls of the blocks.

(i) Cathedral Wall

The brick size and layout of Cathedral (1497-1507) is different then barrack added before 1786 and barrack added at the end of 19th century. This specific feature of the building is employed in the design phase in order to reveal the time (changes in the fabrics) in design expression. This will help the visitor to revisit the history of the place both visually and in tactile form.

.....
The brick size and layout of Cathedral (1497-1507) is different then barrack added before 1786 and barrack

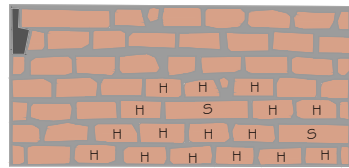
added at the end of 19th century.

.....

For example, the size of the brick (apart from the color) utilized in the 15th century cathedral is 30 x 7 x 13 cm at some sample places and 27 x 7 x 13 cm at other. While at some places it is 24 x 6 x 11 cm. The brick layout (bond) employed is mixture of headers and stretchers, as is evident in the wall survey details (images on shown with captions).

(ii) Wall of Barrack before 1786

The wall of the barrack added before 1786 has specific size of the brick and layout. The coursed brick masonry comprises of two layers header bond and stretchers inserted in some places of third layer. In some places, the brick pieces have been inserted in order to increase stability. While the size of the brick in this wall is: 25 x 6 x 12 cm.



COURSED BRICK MASONRY

The wall generally employs two layers header bond and stretchers inserted in some places of third layer. In some places, brick pieces have been inserted in order to increase stability.

Brick Size: 25 x 6 x 12 cm
Joint Pointing: Mortar (Lime Mortar)

(iii) Wall of Barrack added at the end of 19th Century

The barrack which was resulted due to an addition at the end of 19th century has specific wall construction method. The wall is a brick coursed rubble masonry i.e. rubble stones sandwiched between courses of brick layers at specific distances (60-70 cm).

“... has specific wall con-

Image(top & bottom): Sample Wall of Barrack before 1786, Location: Ground Floor ally of Block 'F'
Source: By Author

struction method. The wall is a brick coursed rubble masonry i.e. rubble stones sandwiched between courses of brick layers at 60-70 cm...”

The wall employs header bond with rubble stone of varying sizes (23 x 14 cm maximum size). The brick size at one place is 24 x 6 x 12 cm while at other is 25 x 6 x 12 cm. At the lower portions of the barrack wall, is another wall. Constructed out of header bond only the wall has 2-3 layers of stone cladding at the lower sides.

Remember that, the brick coursed rubble masonry is also evident in the upper portion of the wall (interior of





Image: Phases of Additions in the Church of S. Donato
Source: By Author

rooms).

B. Vault Types

There are primarily five (05) kinds of vaults used in the whole citadel (though sizes and shapes may vary in accordance to the shape of room they cover and location). These vault types are:

- a. Vault with I-Beam
- b. Elongated Groin Vault
- c. Groin Vault
- d. Fan Vault
- e. Barrel Vault

These different types of vaults are shown on the next pages with detail sections which will be helpful to understand the construction method employed for them. Remember that the brick layout and configuration has been surveyed at the site.

.....
 "... there are primarily five
 (05) kinds of vaults used in
 the whole citadel..."

Image: Vault with metal I-Beam
 Source: By Author



The first image of the vault shown is the vault with metal I-Beams. The vault is constructed with the bricks (with slight curve like barrel vault) between metal I-beams (girders). The floor above the vault is made of concrete and then finished with floor tiles. The gap between the concrete floor and the brick vault is probably filled with either gravels or sand.

Remember that this vault has been added later during the extension of barrack at the end of 19th century. This is also evident from the type of material they have used i.e. metal I-beams.

It is located on the ground floor of Block 'F'. Previously, the space used to be aisle of 15th century cathedral.



The second type of vault is elongated form of Groin Vault. These types of vaults are employed to cover large spans of rooms at different places especially in block 'F' and block 'E'. The detail of the vault is shown on the next pages with detailed section showing the configuration of the bricks and joinery with the perimeter vaults.

The third type of vaults are used for square rooms with roughly equal dimensions. The brick placement is same as the elongated groin vault except the longitudinal size. These are most common vaults in the citadel.

Image: Barrel Vault and Fan Vault
Source: By Author

The forth type of vault is fan vault. These vaults are present on the attic level of block 'F'. These vaults originally belong to the cathedral of 15th century. These were not demolished during late modifications therefore still present in their place.

The vaults were part of cathedral's eastern aisle and transept. The vaults have specific configuration of brick layout (shown in the plan). The fifth and last type of vault used is barrel vault. Generally, it is used in the areas where the space was elongated, congested and less width. A sample



of the vault is depicted below taken from block 'F'. These vaults have also specific layout of the bricks which help in the stability of the vault. Remember that vaults are accompanied by brick reinforcements (will be discussed later).

C. Brick Reinforcement Types (Vaults)

The vaults are reinforced with the help of bricks almost in every place. These reinforcements are noticeable in the attics of the blocks. These reinforcements give strength and rigidity to the vaults thus maintaining the integrity of form and bearing the load above.

.....
 "...these reinforcements give strength and rigidity to the vaults thus maintaining the integrity of form and bearing the load above..."

Image: Sample of Brick Reinforcement for Vault
 Source: By Author



There are different types of brick reinforcements used in the building blocks. But the two general ones are shown here. They have specific configuration of the bricks. They interlock with the vault bricks in specific way too. In some cases, the bricks are inserted longitudinally into the vault while at some places they are inserted horizontally (as shown in the images).

D. Roof Types

The roof construction in the all blocks of citadel comprises of wood



and clay tile. The wooden elements consists of horizontal straight ridge beams or sloped lateral rafters with wooden batons to support the clay tiles.

The sizes of ridge beams vary because they are used in raw form (instead of finely produced industrial rafters). A rough size for wooden ridge beam can be approximated as 25 x 32 cm. While for rafters it is 11 x 12 cm and for batons is 4.7 x 5.8 cm. It must be remembered that the sizes are not standard throughout but above dimensions will give a general idea of their sizes.

Image: Sample Roof of Wooden Rafter Roof
Source: By Author

Roofs in the citadel can be divided into two main categories according to placement of ridge beams, and combination of roof elements (ridge beams, rafters and batons). First type of roof has longitudinal straight ridge beams accompanied by transversal sloped batons. While the other type of roof has transversal sloped rafters with longitudinal straight batons and another set of batons (sloped transversally). Sample of a roof type is shown in the image here.

D. Architectural Features

Significant architectural features in the citadel of Mondovi include the columns which belong to 15th century cathedral, brick work (relief) carried out in the part (barrack) added at the end of 19th century.

The first architectural feature depicts the 15th century cathedral's column. Made up of bricks it is currently part of block 'F' and block 'E' (truncated in some parts). Although the exact configuration of the bricks



for the column can be known by removing the top layer of the column (which is not possible) therefore, a possible configuration (hypothesis) of bricks is shown with the rules of brick masonry (i.e. overlapping the gaps in successive courses).

The types and shapes of the bricks utilized in the column are also shown. These are recreated on the basis of survey data from the site.

Second architectural feature of the building blocks in the citadel are the brick arches for windows and doors. Instead of concrete lintels, the brick

arch structure is used to achieve the free span for doors and windows. The construction drawing for such places is shown in the diagrams.

It helps one in understanding the placement and joinery of bricks to each other in order to create desired shape and span. (see construction survey of window and door). Another significant feature is the brick relief on the corners of block "F" (in portion of 19th century addition). The bricks are joined and arranged in specific way in order to increase the bondage at the corners of the building. It comprises mostly of header



Image: 15th Century Cathedral's Column
(Exterior/Interior Views)
Source: By Author

bond and utilizes stretcher at some places. These are prominent on the eastern and southern facade of the block 'F'.

D. Details

Some of the prominent and general construction details of the building blocks are the decorative projection (at rain gutter level), rafters or ridge beam joinery & wood baton extension at the end of transversal rafters. These details and their construction methods are shown in this section.

The detail shows the support of longitudinal batons with the help of another wooden element which is attached to the end of transversal rafter of the roof. These wooden extensions are common on the site which give support to the tiles above (which float beyond the line of rafter) and also the rain gutter. The second detail (type) has the joinery on the transversal rafters.

A small metal strip is utilized in or-

der to join both and avoid sliding on the sides of the walls and roof. These strips are also present in the longitudinal ridge rafters in order to tie together thus creating a single rigid wooden roof structure. These metal ties are easily noticeable in the attic of block 'F' of the citadel.

The longitudinal ridge beams rest on a wooden element already inserted in the wall. And the wooden ridge beams are tied to metal strip and pair of nut/bolt on both sides of the wall. Another major detail of the citadel is the decorative projection at the rain gutter level (shown in this section).

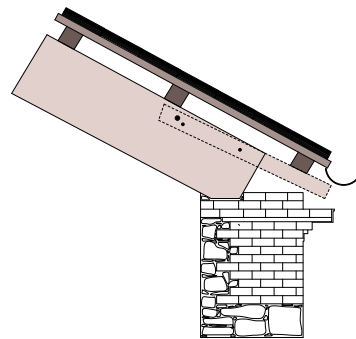


Image (left): Roof Detail - Wooden Element
Image (right): Roof Detail (Rafters Connection)
Source: By Author

The projection is extended from the line of building wall outwards. The element which holds the brick used for extension is a stone flat tile.

The final curved finishes achieved on external facade which are easily visible to the naked eyes are achieved with the help of plaster or cement mortar. This projection helps in carrying the load of rain gutter above especially during rain. The wall is constructed out of both rubble stones and coursed bricks as discussed earlier in the section.

9.3 Analysis of State of Conservation

Description

As it has been mentioned earlier that the Citadel of Mondovi consists of 09 building blocks apart from underground parking facility. Due to scale of the blocks and the quantity of the facades, decay study for some of

the blocks is included in the report (decay for all blocks will be added in presentation boards for final presentation).

.....
“...decay analysis shows the types of decays with type of intervention proposed...”
.....

The main blocks which are added here for decay analysis are; Block D, Block E and Block F. The first two blocks have 4 stories while the last has only 2 floors.

A. Block F

Construction Date: Varies
Total Area: 1740 sqm (approx.)
Number of Floors: 02
Current Use: Abandoned
Construction Material: Brick, Stone
Exterior Material: Plaster
Dimension: 60 m x 14.5 m (approx.)

Interventions

Cleaning

Consolidation

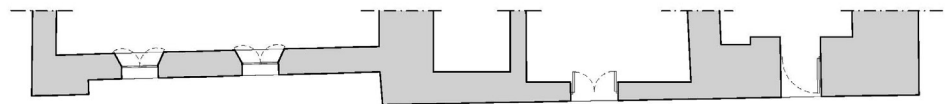
Protection

Integration

Re-Integration

Scale: 1:100

North-East Facade



A



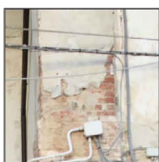
B



C

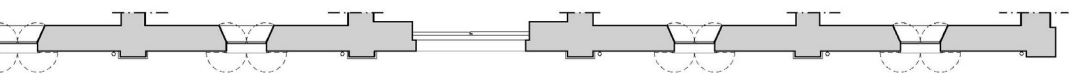


D



E

ANALYSIS OF STATE OF CONSERVATION



F



G

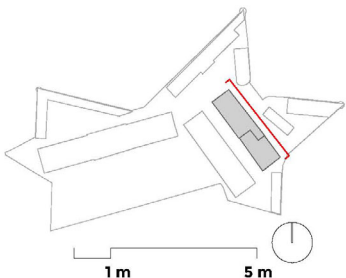


H



I

KEY PLAN

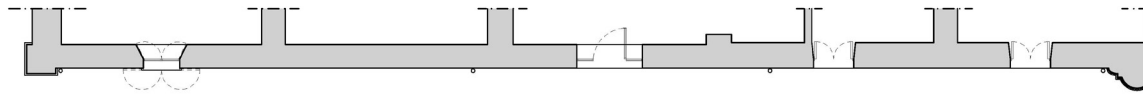
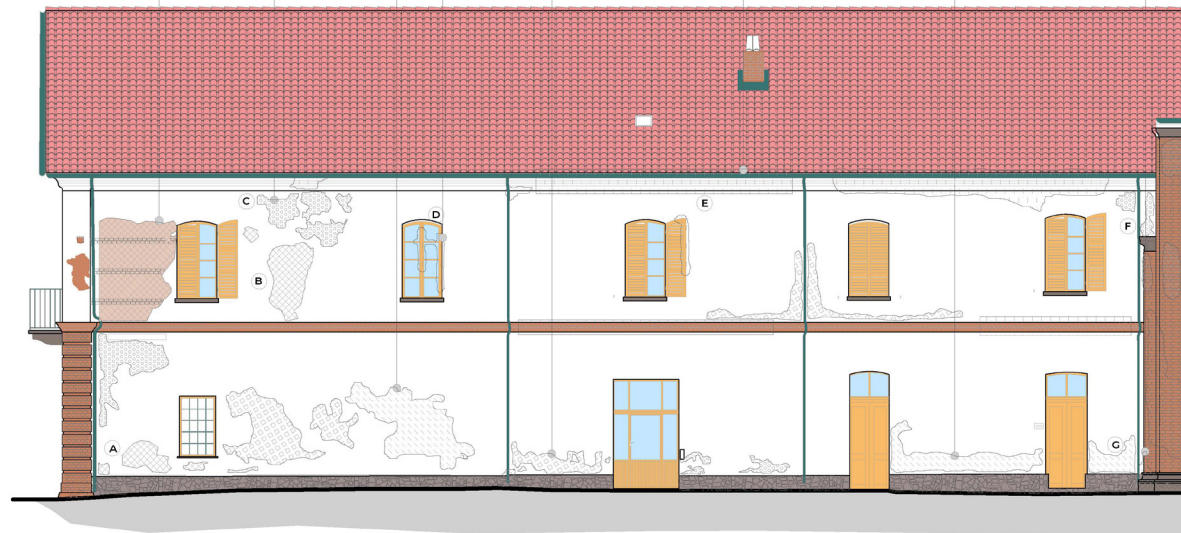


Interventions

Cleaning							
Consolidation							
Protection							
Integration							
Re-Integration							

Scale: 1:100

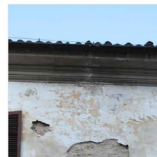
South-West Facade



A



B



C



D

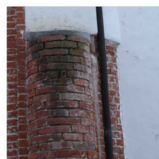
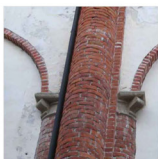
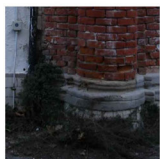
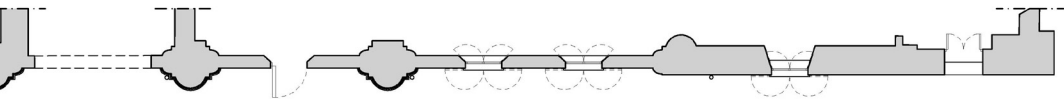


E



F

ANALYSIS OF STATE OF CONSERVATION



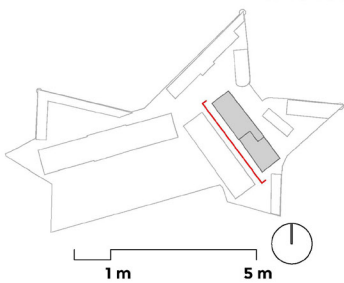
G

H

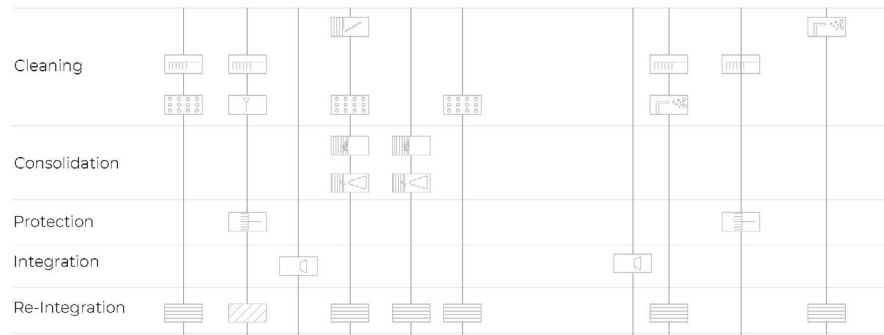
I

J

KEY PLAN

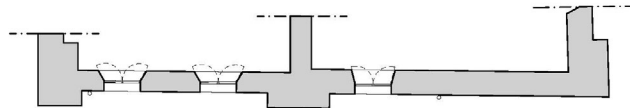


Interventions



ANALYSIS OF CONSERVATION

Scale: 1:100
**South-East
Facade**



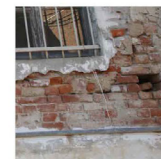
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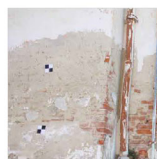
B



C



D



E



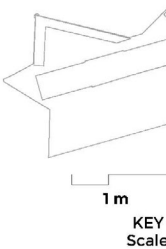
F



G

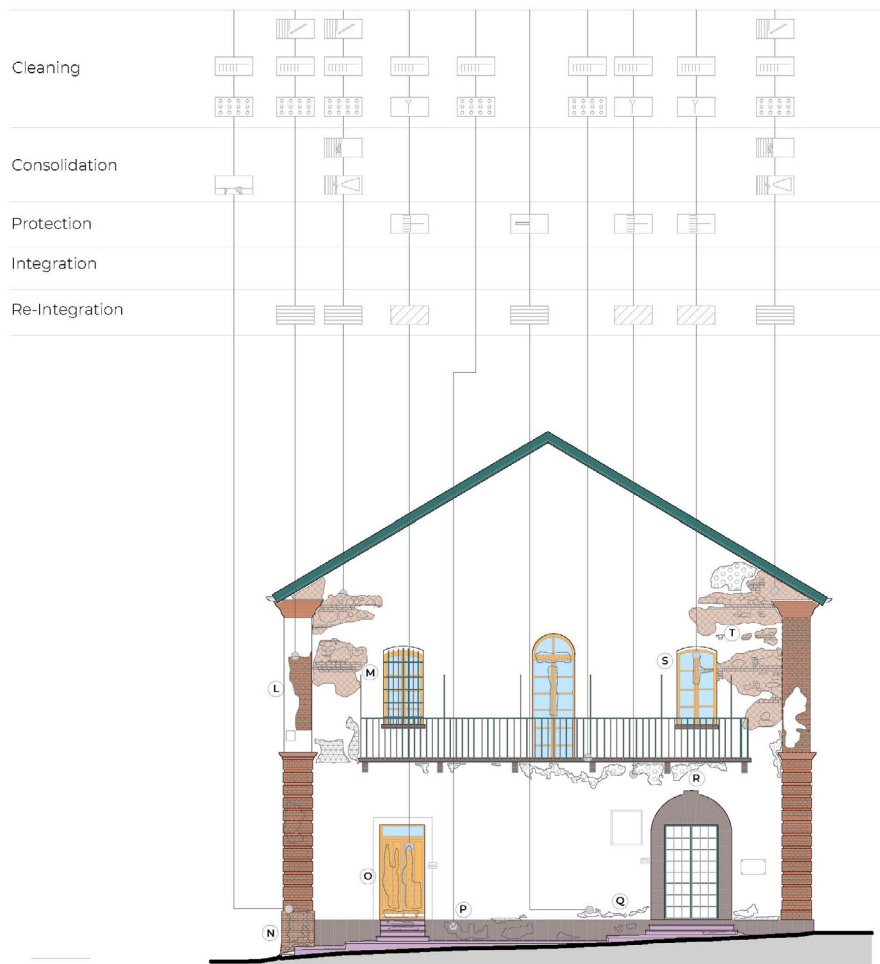


H

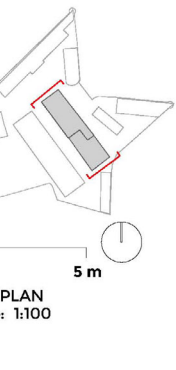
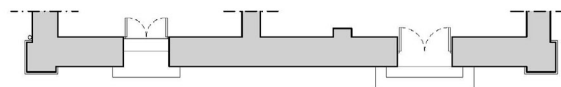


OF STATE OF RVATION

Interventions



Scale: 1:100
**North-West
Facade**



L



M



N



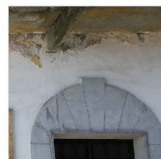
O



P



Q



R

































S

























T

Image: Legend (Analysis of State of Conservation)

Decay				Interventions			
	Alveolization		Disconnection		Leaking		Spalling
	Bio-Colonization		Dis-aggregation		Lack		Swelling
	Biological Patina		Efflorescence		Lacuna		Stain
	Capillarity		Erosion		Patina		Presence of Vegetation
	Cracking		Exfoliation		Pitting		
	Crust		Incrustation		Sub-Efflorescence		
	Deposit-Surface		Leaching				

Cleaning	
	Water Cleaning
	Cleaning by Compresses (Air)
	Mechanical Cleaning
	Application of Biocides/Herbicides
	With broom or Nylon Brush
	Elimination of Weeds

Conservation





			Material Legends	
Manual Removal with Plastic Spatulas	Integration	Protection	 Clay Tiles	 Plaster with Lime Finish
	 Replace Window (components), Shutter	 Protective Films		
Consolidation	 Rain Gutter and Down Pipe	 Damp Proof Rods	 Concrete	 Stone Cladding
	Re-Integration		 Coursed Brick	 Stone Slabs/Pieces
Grouting/Repointing	 Masonry/Plaster Texture & Color		 Coursed Brick with Rubble Stone	 Stone Rubble Masonry
Filling Cracks and Voids	 Connection of Masonry with traditional materials, or with resin-based products		 Glass	 Wood
Impregnation (Water Repellent)	 Wood Polish & Color		 Metal	

The most common decay type observed in these blocks is exfoliation, efflorescence, sub-efflorescence, lack, lacuna and spalling. Other minor decays are crusts and leaking. It must be mentioned here that the major cause of the decays at the site (in different building blocks) is moisture, rain water leakage and neglect. Therefore, you will also get to see biological colonization and vegetation on the soil level impacting the building fabric.

.....
“...common decay type observed in these blocks is exfoliation, efflorescence, sub-efflorescence, lack, lacuna and spalling. Other minor decays are crusts and leaking...”
.....

Though the construction material used for the building blocks is degraded on a lesser degree but the exterior finishing surface (plaster

finish) is heavily deteriorated (especially block D and eastern facade of block F). A number of windows are even missing in block D which need to be replaced (thus proposed as intervention).

In all cases, cleaning is proposed as first intervention step. It involves ways like water cleaning, cleaning by compresses, mechanical cleaning, with broom, plastic spatulas etc. This will help in eliminating unnecessary deposits on the facades and allowing us to take next steps like protection and re-integration.

During the stage of consolidation ; which involves surface grouting, filling cracks/voids and impregnation has been used (specifically for block F and block E) where the old facades are exposed as design intent/idea. Lastly, integration as intervention comprises of fixing and installing window frames and glass panes. In addition to this rain gutters and downpipes is also part of this phase, as rain water is a major reason of decay in the citadel.

Chapter 10

Recovery Proposal

10.1 RECOVERY PROPOSAL FOR CITADEL DI MONDOVI

Overview

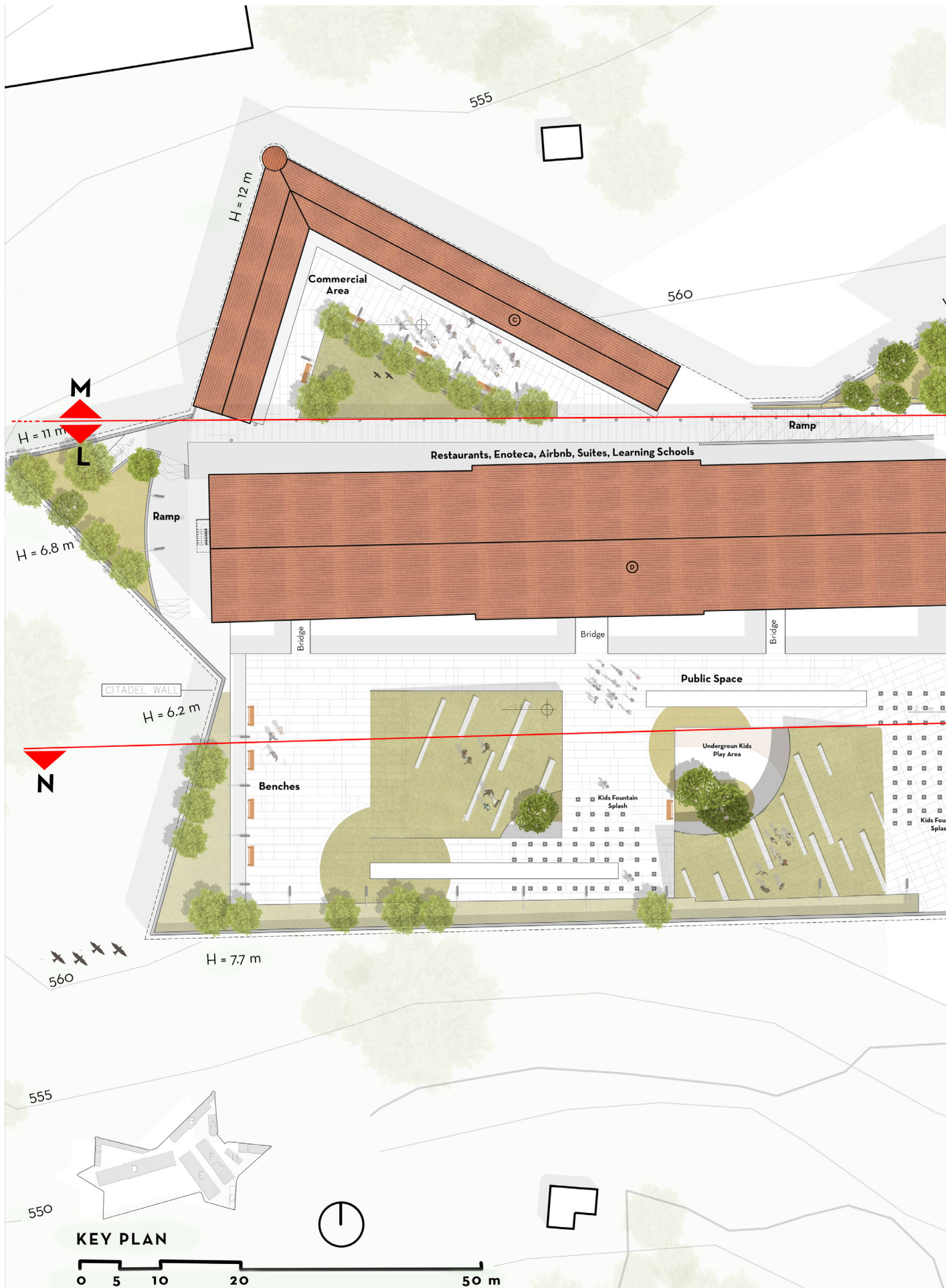
This chapter of the thesis deals with the final stage of the work i.e. architectural design proposal. The section will include all drawings related to design proposal which will help to shed light on the programs (in door as well as outdoor) proposed for the citadel. It will also elaborate the range and variety of spaces designed or restored at the site.

The drawing for the master plan (Roof Plan) shows the scale of building blocks, the ratio of sheltered space vs outdoor open space. It also shows the division of spaces to different pockets to be used for different purposes at different duration of the day. In addition to this, it shows the scale of landscape (soft) and hard landscape. Particular attention must be drawn in order to see the traces (footprint) of 15th century cathedral

inscribed into the outdoor floor tiles (along cathedral's nave and in apse).

All blocks have different programs. Block 'A' is already occupied by military personals. Block 'B' has bar, bank and tabbachi. The whole block 'C' is occupied by commercial facilities for locals. These facilities are shops for fruits, vegetables, stationary, coffee bars, etc. This is important because the senior citizens of Piazza Mondovi have to travel down the funicular to Breo on daily basis, in order to buy grocery (issue highlighted in analysis portion of the thesis).

Block 'D' includes schools and day-cares. It also includes music schools. Upper floors have restaurants, AirBnB rooms and hotel for tourists. Block 'E' has public facilities like library, reading spaces, accompanied by relevant programs. Block 'F' which served as caserma & church has military museum and exhibition spaces. Block 'G' has fast food facility. While block 'H', previously priest house is now artist's residence. Block 'I' of citadel is fitness center for locals.







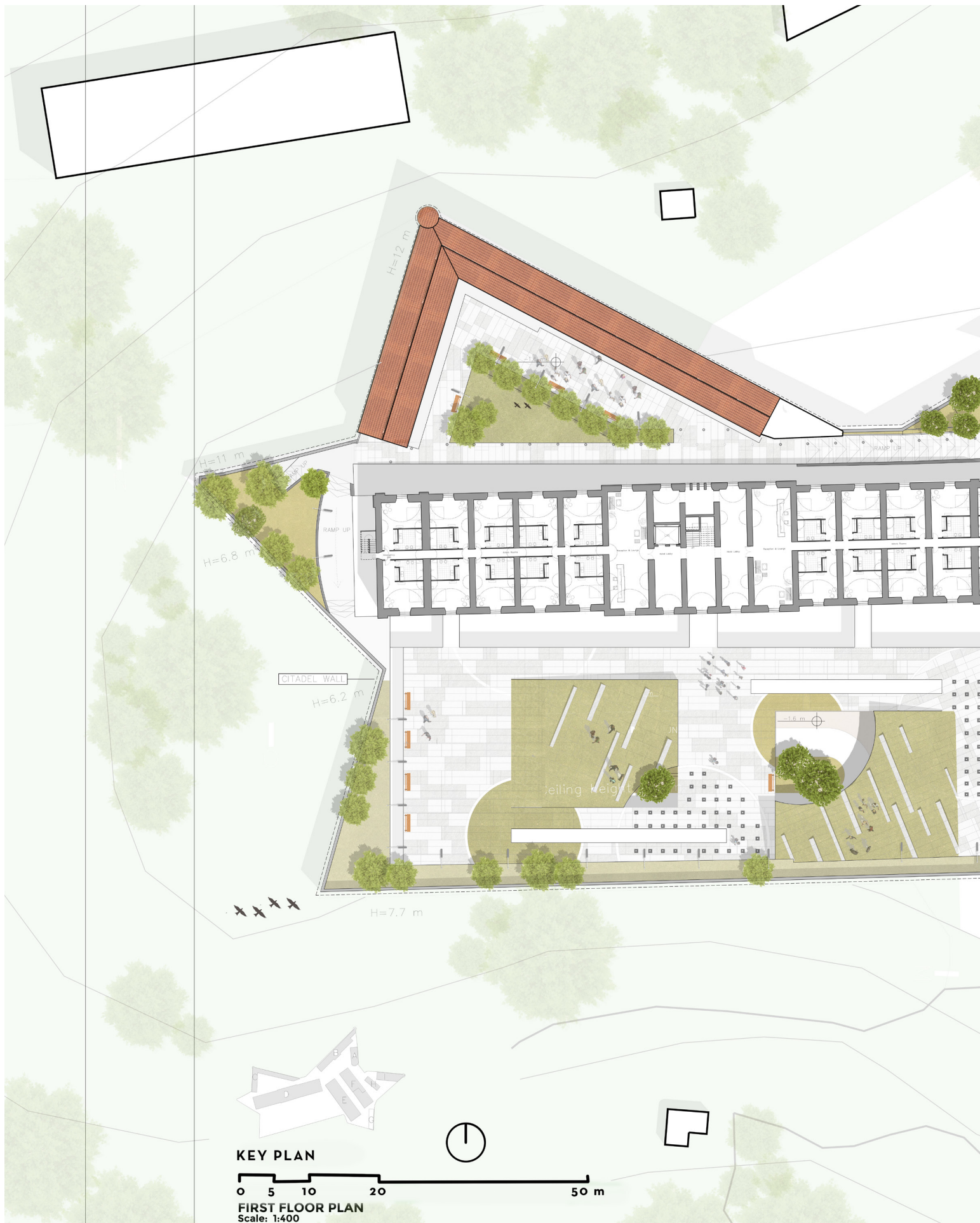
Adaptive Re-Use Proposal - Upper Ground Level Plan (Citadel of Mondovi)





Adaptive Re-Use Proposal - Lower Ground Level Plan (Citadel of Mondovi)





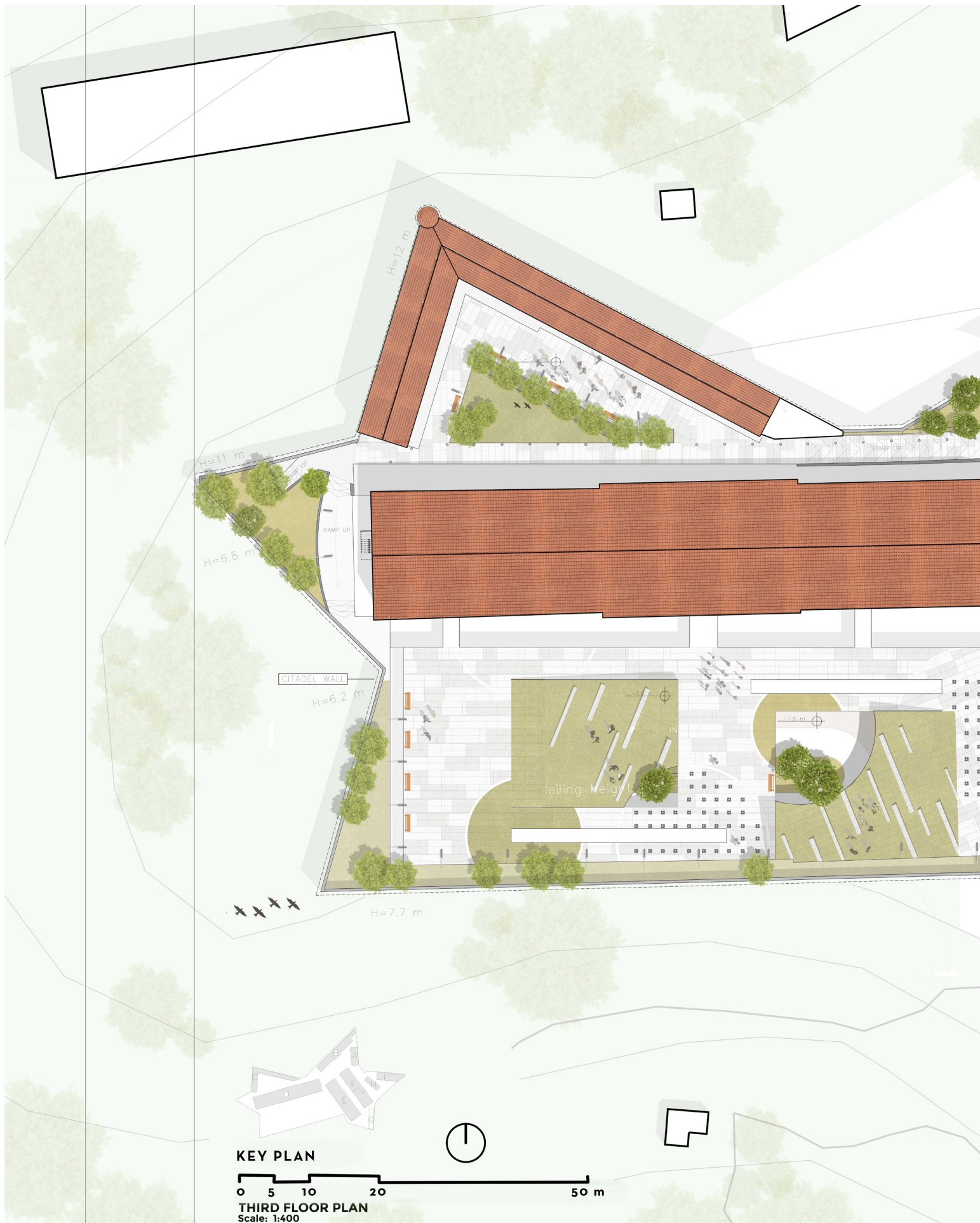
Adaptive Re-Use Proposal - First Floor Level Plan (Cittadella di Mondovi)





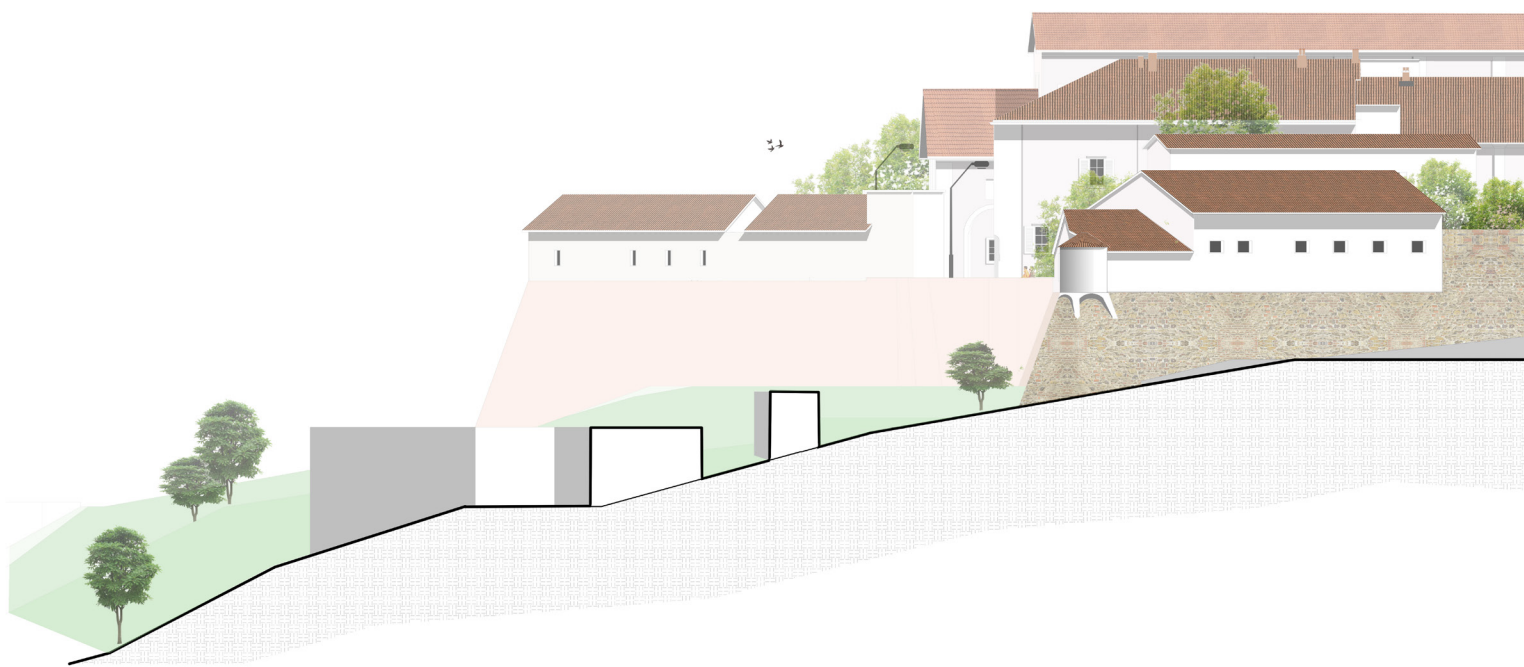
Adaptive Re-Use Proposal - Second Floor Level Plan (Citadel of Mondovi)



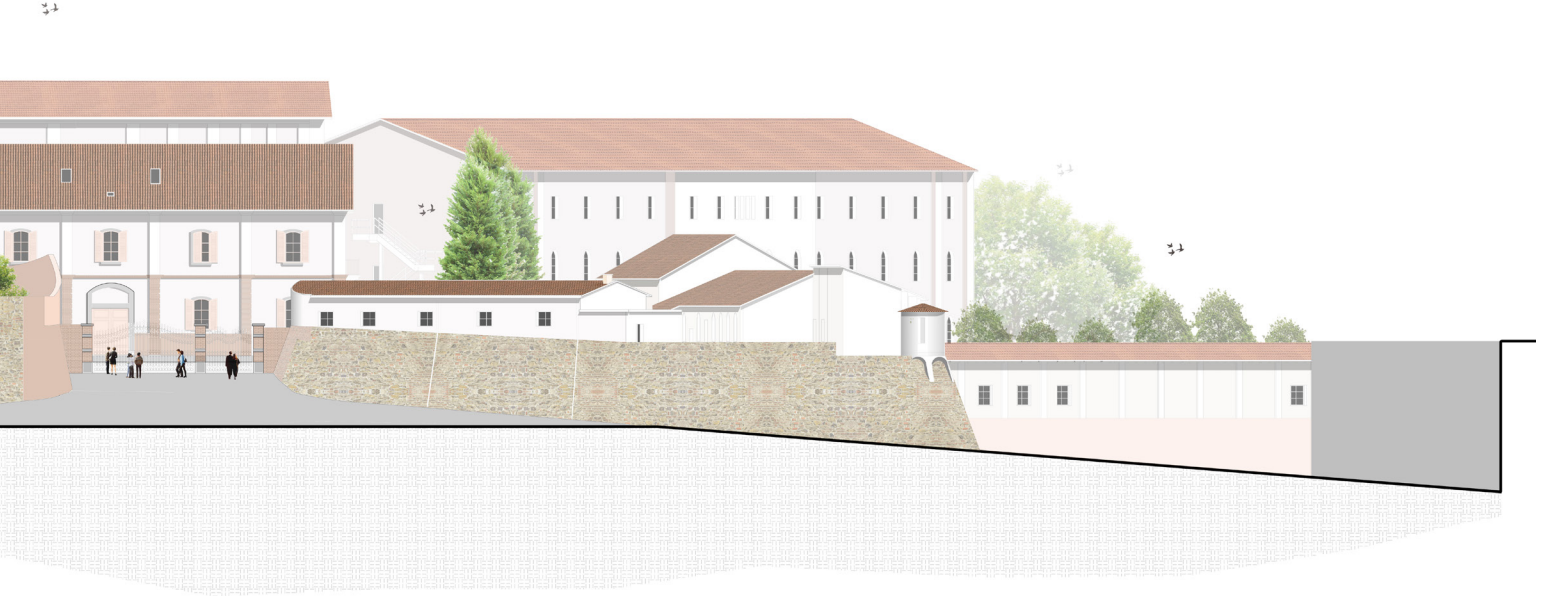
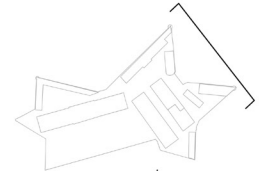


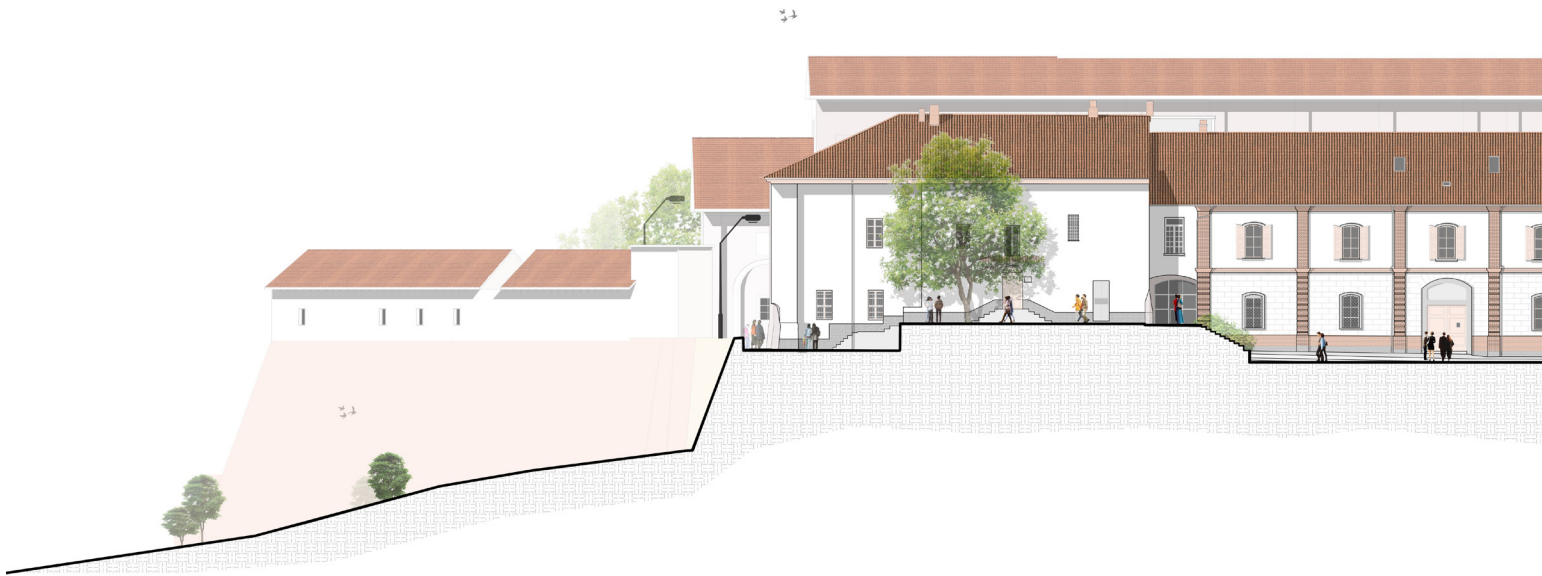
Adaptive Re-Use Proposal - Third Floor Level Plan (Citadel of Mondovi)

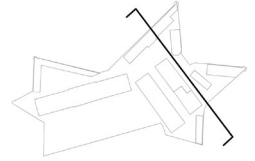




Adaptive Re-Use Proposal - Section HH (Citadel of Mondovi)
Entrance Gate to Citadel

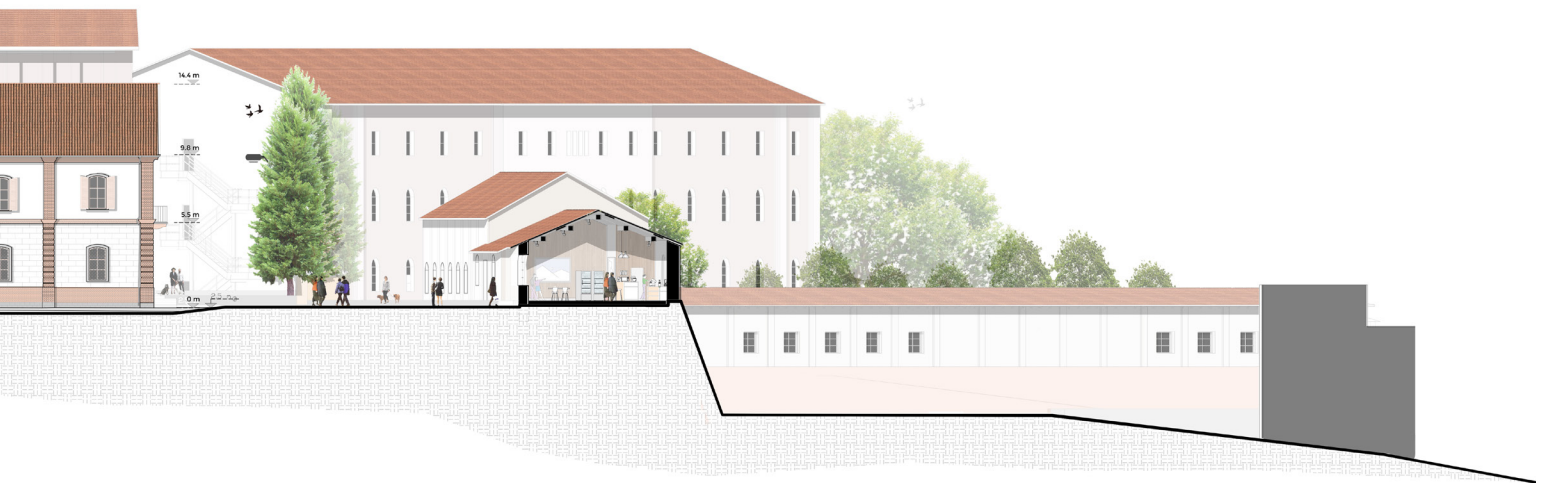


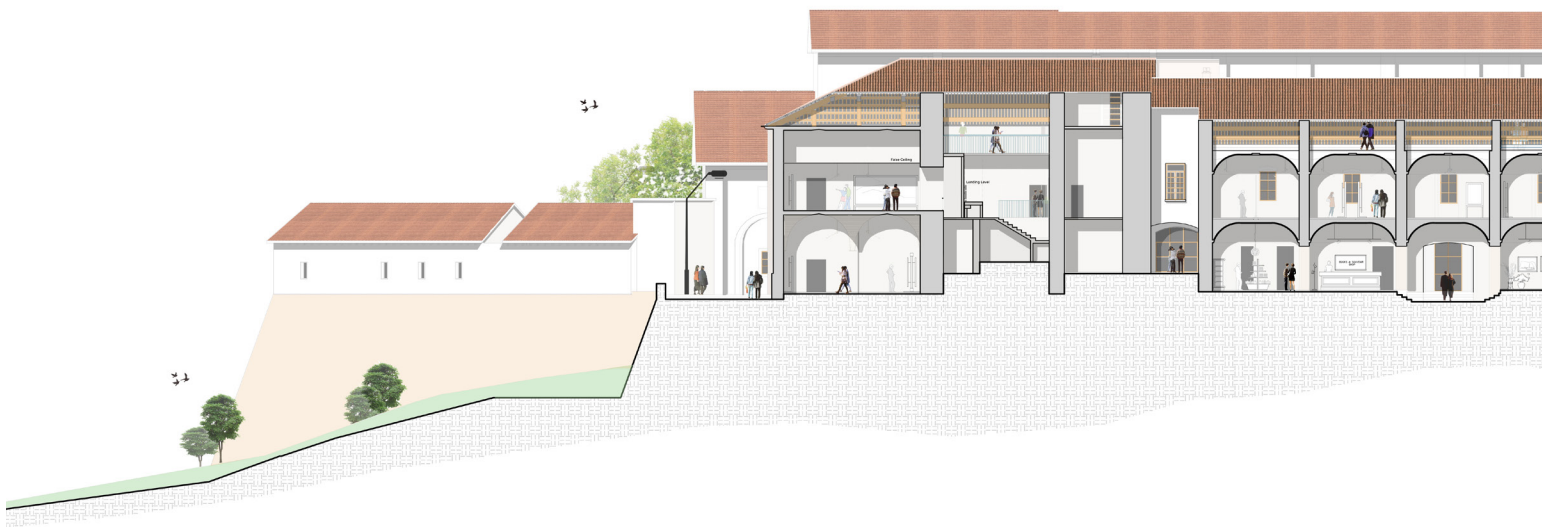




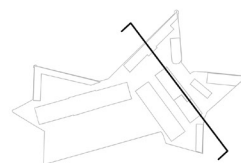
0 5 10 20 m

KEY PLAN





Adaptive Re-Use Proposal - Section JJ (Citadel of Mondovi)
(Military Museum, Exhibition Spaces, Ticket Counter, Office, Bar)

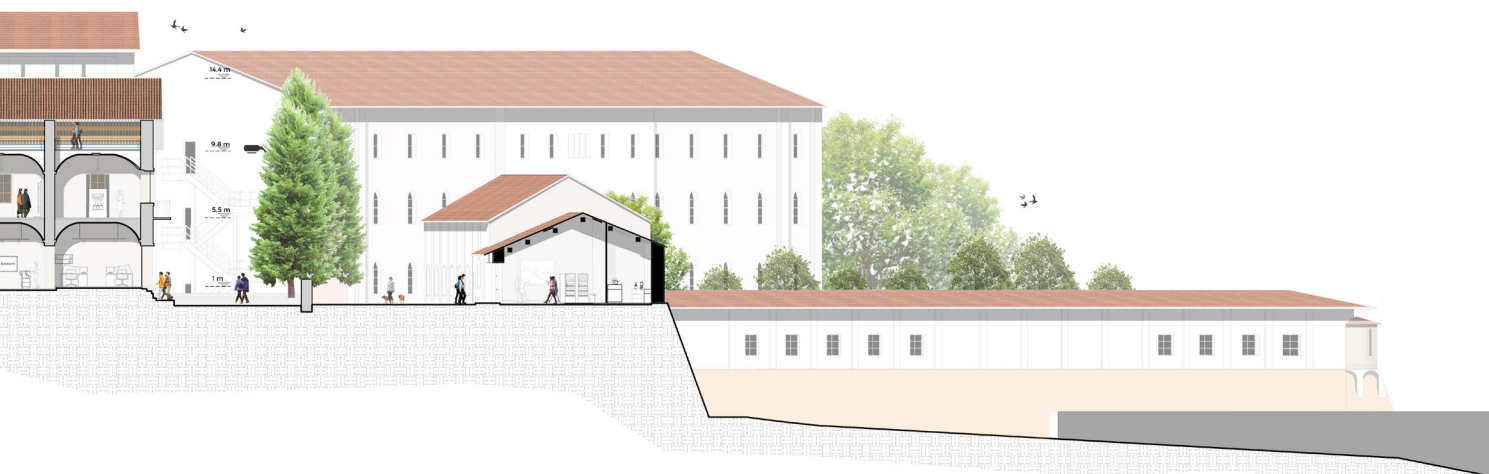


0 5 10 20 m

KEY PLAN

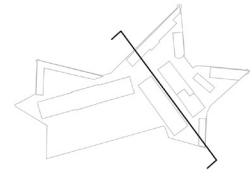


5m

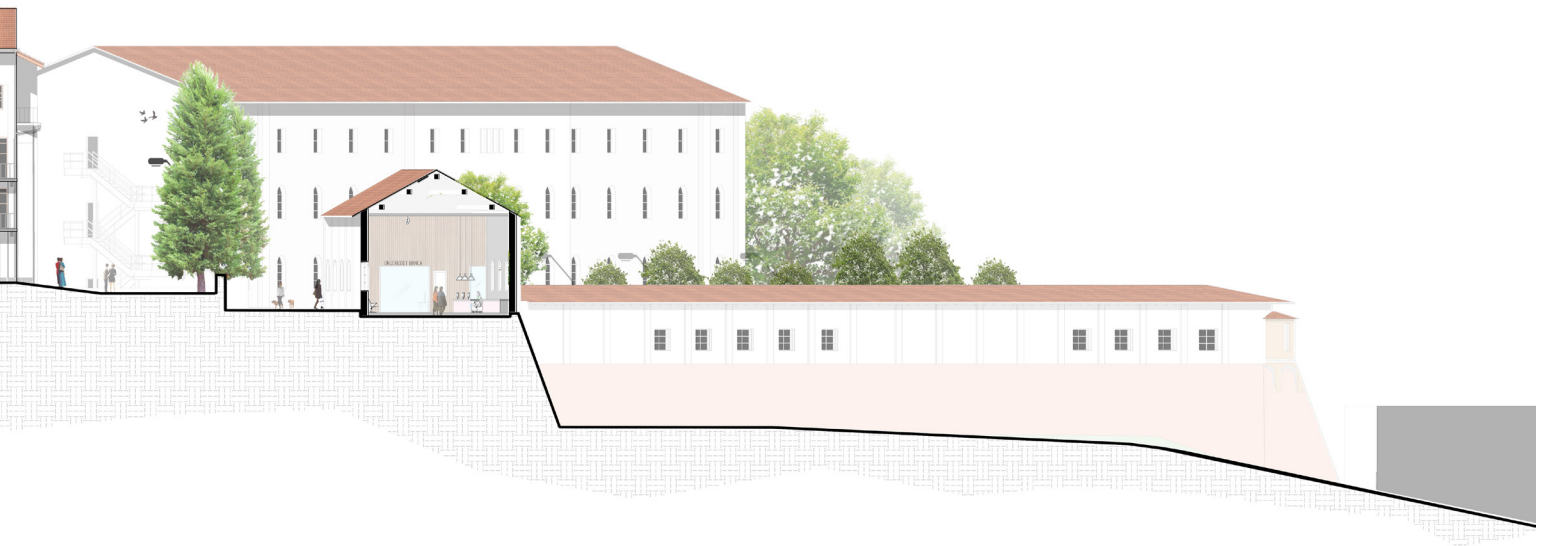


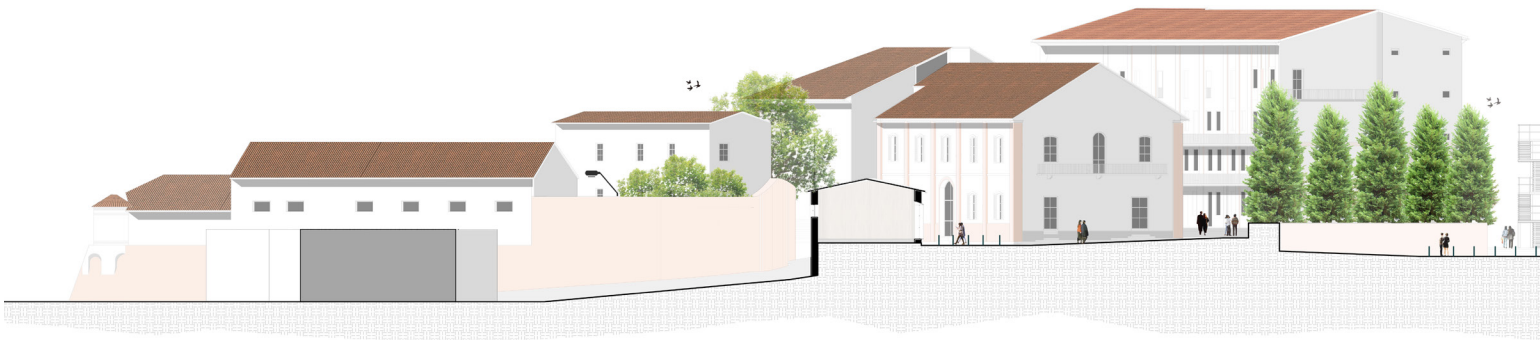


Adaptive Re-Use Proposal - Section KK (Citadel of Mondovi)
(15th Century Cathedral Nave/cloister, Fast food Outlet, Bank)

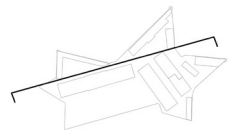


0 5 10 20 m
KEY PLAN



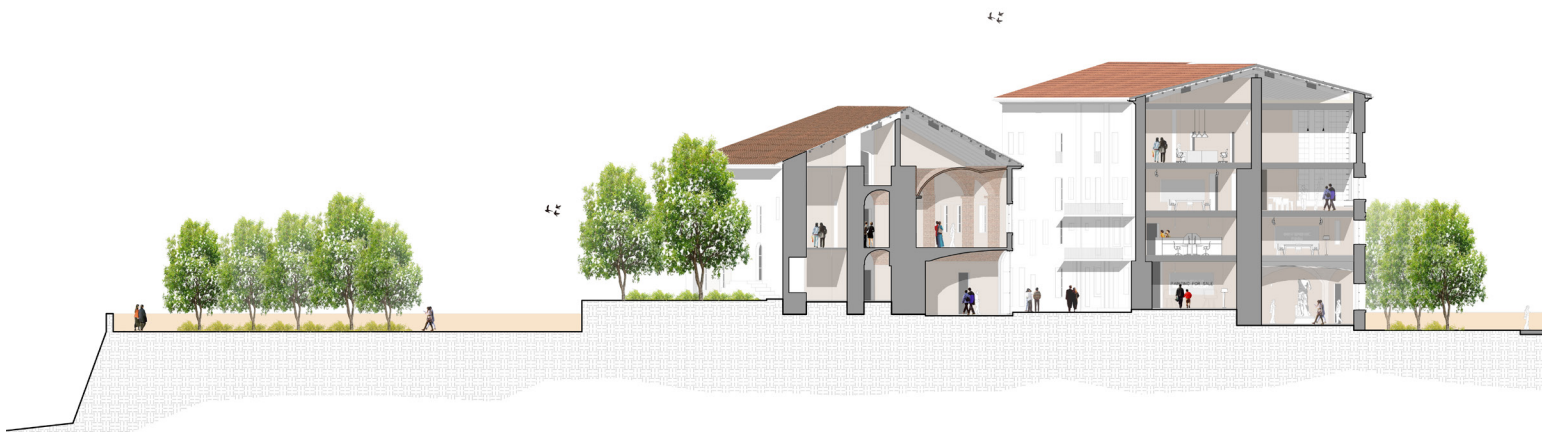


*Adaptive Re-Use Proposal - Section LL (Citadel of Mondovi)
(Learning Centers, Suites and Airbnb Accomodations)*

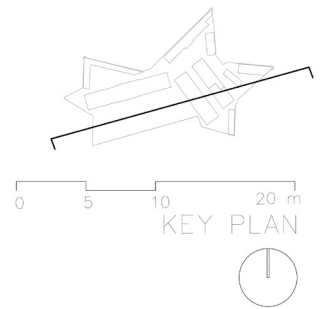


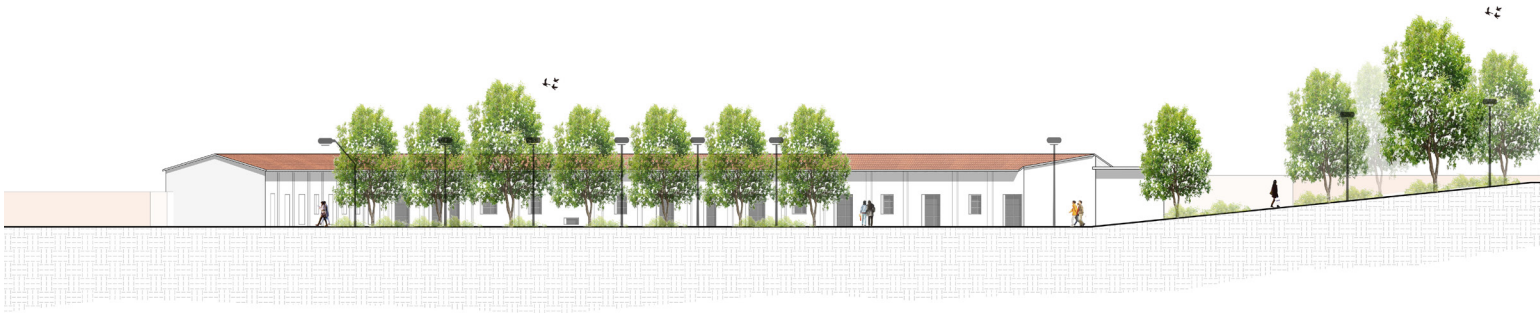
0 5 10 20 m
KEY PLAN



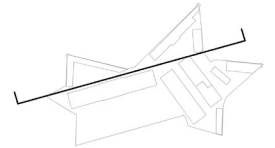


Adaptive Re-Use Proposal - Section NN (Citadel of Mondovi)
(Museum, Public Park)





*Adaptive Re-Use Proposal - Section MM (Citadel of Mondovi)
(Military Station, Passage to Underground Parking, Market)*



0 5 10 20 m
KEY PLAN

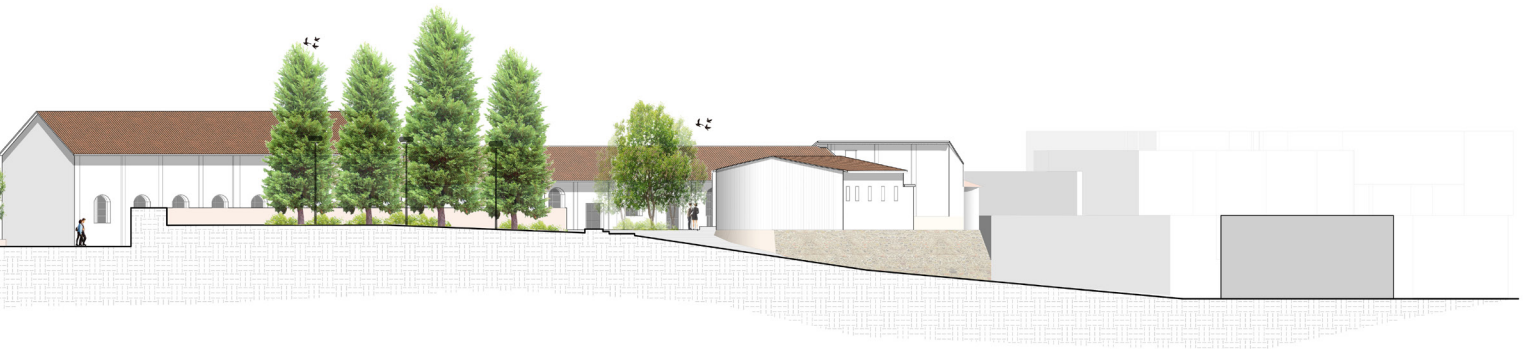


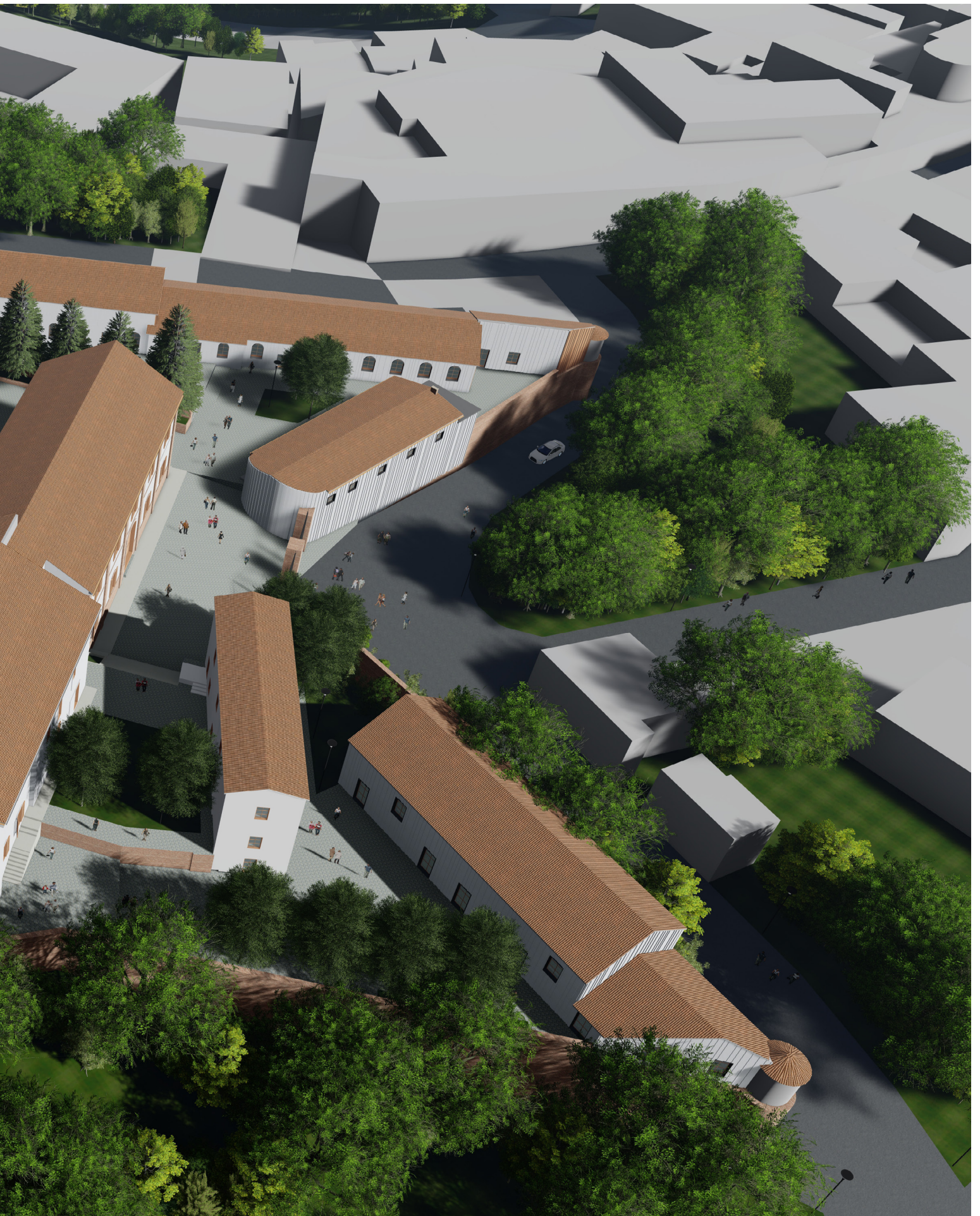


Image: 3D Render View of Public Park (Northern Court)
Source: By Author





3D Isometric Rendered View of Citadel of Mondovi Adaptive Re-Use Proposal
Source: By Author





Bird Eye view of Citadel of Mondovi (Existing Condition)

Image Source: Citadel of Mondovi, Source: <https://www.unionemonregalese.it/>



Notes & Conclusion

The primary aim of the thesis is to propose an adaptive re-use and recovery proposal with mixed programed spaces (different activities) that can be used on daily basis throughout the year. It can be accessed/used by the locals as well as it'll be a center which will attract people coming from outside (neighboring areas and tourists). I believe that it [facility] will help in revival of local economy in addition to creation of social space crucial for well-being of community.

Most importantly, the recovery of the citadel of Mondovi is a prior urban issue for the development of Piazza Mondovi and the whole city. It is also crucial because the Piazza has a significant role in domain of cultural identity for the whole territory.

The thesis has aimed to covered theoretical research stage, information collection (site surveys) and finally a practical recovery proposal as much as possible. The scale of the project for an individual, at some stages made it strenuous. Despite such

setbacks, the thesis has not turned a blind eye to important themes related to the topic. I believe there is still room to improve many aspects of the work which unfortunately will remain due to limited time.

.....
“... considering the role Piazza has from perspective of cultural identity for the territory the aim of thesis is a proposal with mixed programed spaces to be used daily...revival of economy and social space... lastly assist in the regeneration of the whole Mondovi...”
.....


Lastly, the proposal's programmatic configuration is not only the result of the analysis rather views of the relevant stakeholders (municipality) . These opinions collected from sources like newspapers and municipal development projects intended for future plans of the place.

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Discussion Boards

18th & 19th Century

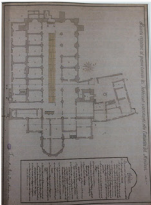
Catsto 1877




Catsto Napoleonic (1796-1810)



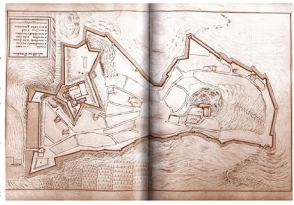
Francesco Maria Isardi (1786)




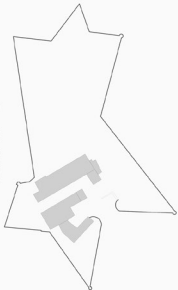
Archive in Mondovi (Post 1751)

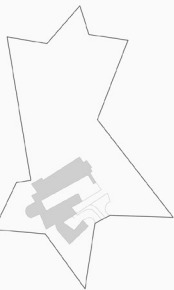


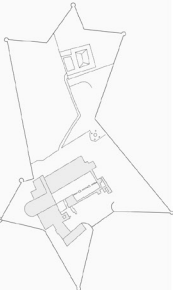
Survey of Michel Angelo Morello (Post 1685)

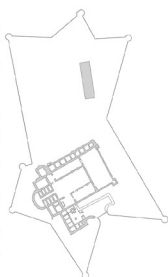








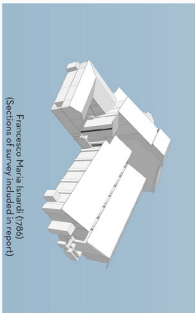














Comparison of Catsto 1877 and Isardi's Survey




Caserna Galliano added at the end of 19th Century (see next phase)

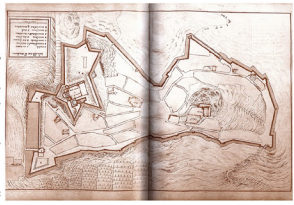



17th Century

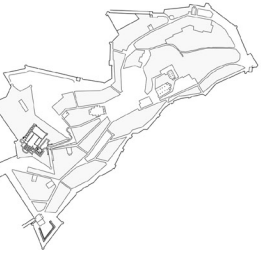
1573 - Engineer Ferrante Vitelli

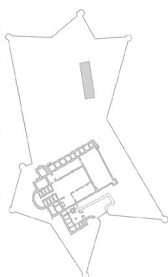



Survey of Michel Angelo Morello (Post 1685)






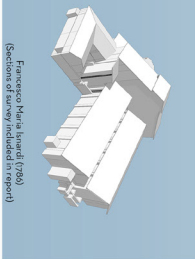








Internal appropriations, peripheral wall adjustments and floor additions



1573 - Engineer Ferrante Vitelli

1579 - Ferrante Vitelli applied the fortress of Mondovi and made it the capital. Started to build citadel. Before garrison to troops in curve valley. Vitelli started to build the citadel bastion, destroyed part of St. Domenico Church and monastery.

Vitelli fixed all the main of church to make a big central flying masonry parts. The roof of nave was removed with other adjustments. Recreated using survey of 1786 by Francesco Maria Isardi. (Inferred 3D model).

SOURCE

PIAZZA

CITADEL

BARRACK

3D ILLUSTRATION

13th Century

FIRST SETTLEMENTS

ST. DONATO CHURCH
ON MONS VICO

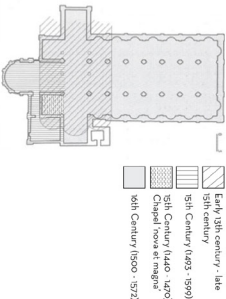
14th Century

L'architetto Francesco Gallo
1672-730
Carboneri, Nino

1388 - Three Nave Church

The church of St. Donato on Mons Vico was designed by Dominican Damiano Zavanella (the appointed bishop of Mondovì). A three nave church was built by him along nearby S. Dominic Convent.

15th Century



The 'Superb Cathedral' in Filiberto Citadel by E. Chiodi

Original Sources:

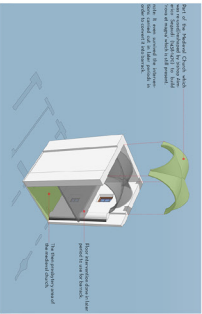
- a. Acta Visitations Ecclesie Cathedrales Montisregii - archival evidence about the construction events.
- b. Memoriae storiche by Gioacchino Grassi D. Santa Cristina
- c. Storia di Mondovì by A. Micheliotti

1438 - 1470 - nove et magna

The 7th appointed bishop Amereus Segaud (1438-1470) sponsored the earlier campaign and transformed the primitive three nave church by adding the chapel nova et magna.

1497 - NEW CATHEDRAL

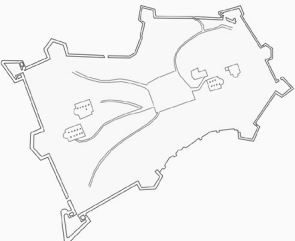
Bishop Amereus di Borgognone (14th bishop appointed in 1497) started the construction of the new cathedral reusing the parts of ancient church and Capella Maggiore.



16th Century



Military Architecture Mondovì (before 1573)

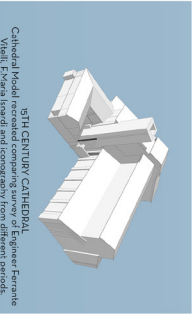


Plan of City and Fortification (before 1573)

- Period 1559
- After the peace terms of Cateau Cambrésis, the duke of Savoy Emanuele Filiberto decided to defend his dukedom with concrete military fortifications.
- This image shows the situation before construction of citadel.



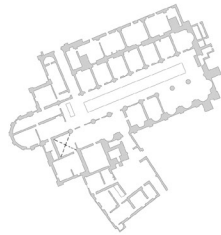
Drawing of City of Mondovì
Francesco Toscani



15th CENTURY CATHEDRAL
Cathedral model recreated comparing survey of Engineer Ferrante Vignoli, F. Pizzani (1940) and iconography from different periods.

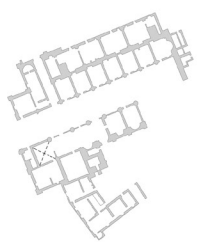
Internal, floors and wall adjustments done before 1786.

State of edifices shown in 1786 survey.



Apse with other walls absent in Catasto 1877.

State of edifices shown in Catasto 1877



Galliano barracks added at the end of 19th Century.

State of edifices shown in Catasto 1904



Current State of the edifices.



ALL PHASES

Various Phases of Edifices with VIEWS

Medieval Remnants

Cathedral (1497-1507)

Barrack before 1786

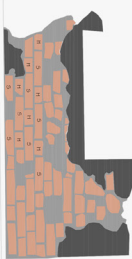
Barrack Added at End of 19th Century

WALL TYPES (w.r.t Phases)

A. 15th Century Cathedral

1. Brick Coursed Wall

The wall generally employs header & stretcher bond. While in some places, brick pieces have been inserted in order to increase stability. Brick Size: 27 x 7 x 13 cm. Joint Pointing Mortar (Lime Mortar)



2. Brick Masonry

The wall generally employs header bond with stretchers at some places. In some places, brick pieces have been inserted in order to increase stability. Brick Size: 27 x 7 x 13 cm. Joint Pointing Mortar (Lime Mortar)



3. Brick Coursed Wall (and Roof Remnants)

Brick Size: 30 x 7 x 13 cm. Joint Pointing Mortar (Lime Mortar). Concrete



4. Brick Masonry

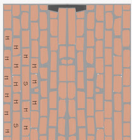
Brick Size: 30 x 7 x 13 cm. Joint Pointing Mortar (Lime Mortar)



B. Barrack before 1786

1. Coursed Brick Masonry

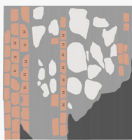
The wall generally employs two layers of header bond and stretchers inserted in some places of third layer. In some places, brick pieces have been inserted in order to increase stability. Joint Pointing Mortar (Lime Mortar)



C. Barrack added at end of 1900s

1. Brick coursed Rubble Masonry

The wall generally employs two layers of header bond and stretchers inserted in some places of third layer. In some places, brick pieces have been inserted in order to increase stability. Joint Pointing Mortar (Lime Mortar)



1. Brick Coursed Rubble Masonry

The wall generally employs two layers of header bond and stretchers inserted in some places of third layer. In some places, brick pieces have been inserted in order to increase stability. Joint Pointing Mortar (Lime Mortar)



H. Part of the Medieval Church which was re-used/redesigned by bishop Amerigo Segaud (1428-1470) to build 'house of magna' which is still present.



G. The column of medieval church and the wall of barrack before 1786, can be seen here. (Interior View)



SOURCE

20th
Century



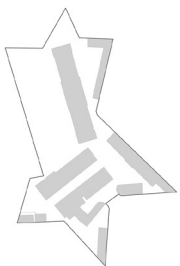
Catisto 1904

PIAZZA

CITADEL

BARRACK

3D ILLUSTRATION



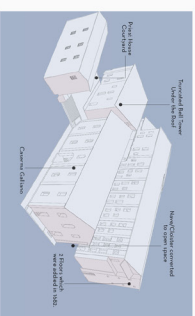
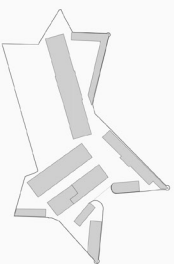
Comparison of Catisto 1904, Iuvare's Survey and current drawings

CASFERMA BERTIOLLOTTI
NOTICEABLE

Current
State



Geoportale Piemonte

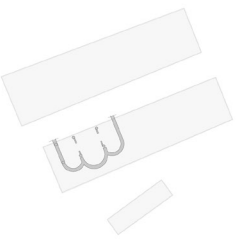


CURRENT STATE
Galliano Barrack, Neusono Large Barrack



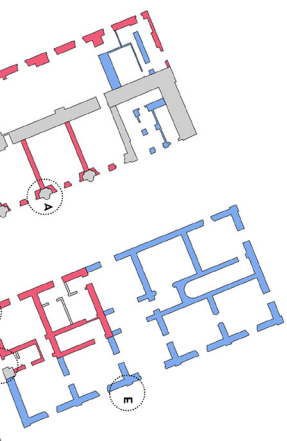
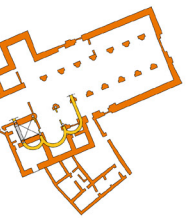
TRANSFORMATION
MEDIEVAL CHURCH TO BARRACK

In 1388, a three Nave Church was built.



Cathedral started to construct in 1497.

State of the cathedral in 1573 for troops.



A. Cathedral column noticeable on facade of other side. The walls added in order to make blets belong to period before 1785.



B. The joint between the S. Donato Cathedral column and wall of barrack before 1785, can be seen here. (Exterior View)



C. The joint between the S. Donato Cathedral column and wall of barrack before 1785, can be seen here. (Exterior View)



D. The current situation of joint between the medieval church column, the wall of barrack before 1785 & wall of Cathedral. (Int./Ext. View)



E. View of the Galliano Barrack where it is evident that the material used is different as compared to other walls (from other phases).



F. Place where the parts of cathedral before 1785 and the barrack added at the end of 19th century

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