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A new path for the access of the Ducal Palace

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Federico J. Gancedo

ABSTRACT

The aim of this thesis is to discuss, investigate and identify the current problematic at the entrance of one of the most important building museums of the Matua city, The Ducal Palace. During this thesis it will be describe all the necessary steps in order to reach to a design project.

In order to do so It was necessary a series of analyses from the historic point of view, a survey to understand the actual situation, a research that involve a series of case studies, and the theory development leading all finally to the project. With the history we will understand the evolution of the Palace and it different stages and changes through time. With the case studies I tried to highlight the different key points of these projects that were very useful later on during the design process and with the theory I would give the reasons to sustain the project ideas.

This thesis focuses at the main entrance of the Ducal Palace, and another amenities of the ground floor, like locker area, services, bar and even a gift- shop. A part from this the program will be explain later on the chapter of the project and we will see it more in details the rest of the requirement that shape the final proposal, but one thing that is important to mention is the final goal, which is “enhance the entrance of the museum to provide a proper tour and experience of the museum to the visitors.

Finally and just to sum up this abstract, this book has been organize in 5 chapters, that follow a logical order to understand the develop of this thesis topic.

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CHAPTER 1 :

HISTORY

Every project has a beginning, and there is no beginning in architecture design without understanding that behind a project there is always history, either because like in this case the project take place on an existence building or just because the project takes part in a context. This project is not different and so, this chapter will focus on what I discovered about this emblematic city and one of it jewels.

1.1 INTRODUCTION OF MANTUA

Mantua or Mantova is a city and commune in Lombardy region, Italy, and capital of the province of the same name.

In 2016, Mantua became Italian Capital of Culture. In 2017, Mantua will also be European Capital of Gastronomy, included in the Eastern Lombardy District (together with the cities of Bergamo, Brescia, and Cremona).

In 2007, Mantua's centro storico (old town) and Sabbioneta were declared by UNESCO to be a World Heritage Site. Mantua's historic power and influence under the Gonzaga family has made it one of the main artistic, cultural, and especially musical hubs of Northern Italy and the country as a whole. Mantua is noted for its significant role in the history of opera; the city is also known for its architectural treasures and artifacts, elegant palaces, and the medieval and Renaissance cityscape.

Mantua is surrounded on three sides by artificial lakes, created during the 12th century, as the city's defense system. These lakes receive water from the Mincio River, a tributary of the Po River which descends from Lake Garda. The three lakes are called Lago Superiore, Lago di Mezzo, and Lago Inferiore ("Upper", "Middle", and "Lower" Lakes, respectively).

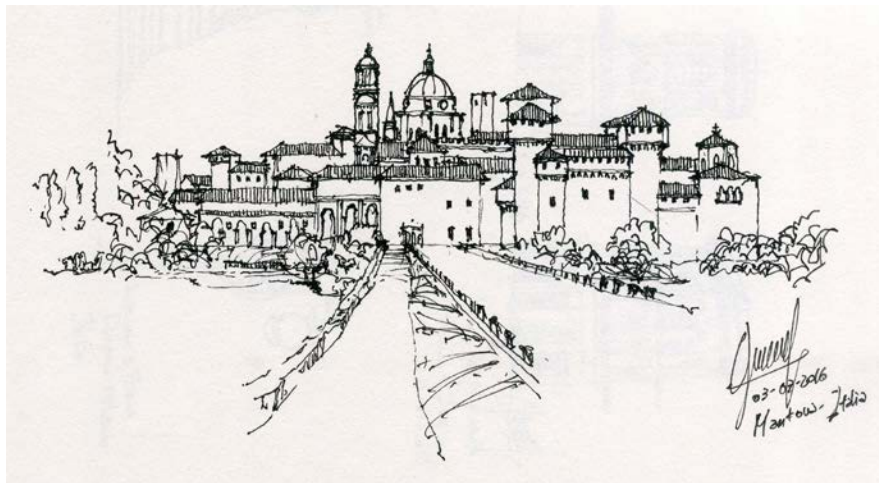


Fig.1.2:
Side view of the Ducal Palace
sketch by Federico Gancedo, 2017

1.2 HISTORY OF THE DUCAL PALACE

The Ducal Palace, as it was mentioned, its one of the greatest attractions in Mantua, but can we said about it.

In the book “The Ducal Palace – Mantua” it is mention that there are few monuments in the world with so many stratifications and loaded with a lot of history as the Ducal Palace. And also describe the Ducal Palace as a city rather than a Palace, given the monumental complex of the building composed for a series of buildings linked together by broad corridors and magnificent galleries, internal courtyards and extensive gardens. The oldest part of the Palace date way back before the time of the most powerful family of Mantua during the renaissance, “The Gonzaga” (1328), who extended not only their fortune and power but also the palace during their time until 1707. The most recent renovations of the palace took place during the second half of the 18th century by the Austrians after the Gonzaga dynasty.

During the 13th century the Corradi di Gonzaga settle in the city, where they became allies with the Bonacolsi, who owned and rule Mantova until August 16 of 1328 when the Gonzaga family rebelled and took the city. The leader of this rebellion was Luigi Gonzaga who was made Capitano del Popolo (“captain of the people”). Under the rule of Luigi and his sons the golden age began not just for the city of Mantua but specially for the palace. In 1352 new walls were built around the old city. While Luigi was mostly distinguished by the foundation of the churches, their sons Guido Feltrino and Filippino renovated the Captain Palace (Palazzo del Capitano). Then came the third Captain of the people Ludovico who form and alliance with Ferrara marring Alda d’Este. He was more interested in the arts and churches. After him came the fourth Captain Francesco Gonzaga. His most celebrated architectural undertaking was undoubtedly the construction of the San Giorgio Castle around 1395, follow up with a major program of fortification. His son Gian Francesco was instead responsible for regularization and restructuring of the Old Court (Corte Vecchia). He attempts to link a series of structures of different age, form and position, something that will continue after even for his successors. Later on, came Ludovico II and the renaissance came to Mantua, with a series of artistic projects of the highest level. Great figures like Donatello and Leon Battista Alberti where involve during this process, leaving a mark on the city. Though they were not the only ones that left a something for Mantua. Since 1460, Mantua reach it highest point in the renaissance with the works of Andrea Mantegna in pieces like the decoration in the Chapel in the castle, later destroyed, the camber of the spouses (Camera degli Sposi), and the triumphs of the Caesar, sent to England when the collection was sold.



Fig. 1.3:
Photo of the painting “Caccia dei Bonacolsi”,
originally painted by Domenico Morone in
1494.

1440



Marches Federico I was the descendent of Ludovico II, and he was responsible for the construction of the Domus Nuova (new home), the first fully Renaissance architecture in the palace complex. On the other hand, the third marches Francesco II his successor focuses more his attention to some works between the Castle and the New Court (Corte Nuova), before the construction of the San Sebastiano Palace on 1506, where he transfers to live. A key point during his ruling in the Ducal palace was played by his wife Isabella d'Este, known as the "first woman of the renaissance". She enriched the palace with decoration and collections. Her chambers in the Castle, later transferred to the Old Court (corte vecchia), and enlarged, are one of the highest expressions of the renaissance. His son Federico II commenced ambitious works in the Castle and the New Court (Corte Nuova), relying principally, from 1524 onwards, with the help of one of the talented pupil of Raphael, Giulio Romano. The artist produces not only paintings and sculptures but also works of architecture, in the Palace like the structure builded next to the Castle of San Giorgio, later destroyed, the Troy Apartment (Appartamento di Troia), as well as the building and decoration of the Tee Palace (Palazzo Te).

After all these years and changes the Palace was still disconnected, fragmented in a way, and between the two main blocks the Old Court and the Castle, there was a confused series of buildings and structures. Over the long reign of Guglielmo Gonzaga, duke from 1550 to 1587, set about the difficult task to create a unity between all the buildings in the Palace. The construction of Santa Barbara church, design by Beltrami, between 1567 and 1572 help in this process, along with the new buildings of the hanging garden and the eight faces Courtyard (Cortile a Otto Facce), and finally with mayors interventions in the New Court: the construction of the Big Apartment at the Castle (Appartamento Grande di Castello), and the realization of the layout of the Exhibition practice (Pratto della Mostra).

Guglielmo left his son Vincenzo a now fully homogenous structure: the palace extended all the way to the cathedral, linked by an exedra. At the end it was accomplished a complex structure, a palace of colossal dimensions in which all the parts were connected, by means of passages, stairs, porticoes, loggias and galleries. The continuous interrelationship of the exteriors and interiors was underline by the skillful blend of art and nature in the decorations, by the presence of loggias and open walkways, by gardens and squares that where located inside the complex but opened onto the outside, and by the use of glass windows.

Fig.1.4:

Master Plan of the Ducal Palace in 1440
illustration drawing by,
Elaraby Dina, 2017

Vincenzo took up this magnificent heritage by intervening without a specific plan, but in almost every part of the palace. He did not know how to manage the money as good as his father and he waste a lot of fortune. Yet, the decline was still far on the years of the next duke Ferdinando. After his death everything past to his brother Vincenzo II, where he inherit one of the most prestigious collections of works of art and objects, which in grand part sold in 1628 to Charles I of England. His successor Carlo I Gonzazga – Nevers, found himself involve in a war, that eventually arrived to Mantova and end up on looting and sacking leaving behind an epidemic plague. The Ducal Palace bared the scars of those turbulent years for a long time to come.

Over the course of the 17th century it is described as a abandoned and ruined building, leaving a clear image that the previous years of glory were never going to be back. An attempt of restoration was made in the middle of the century by Carlo II of the Gonzaga – Nevers, that in 1628, he had replace the main branch of the Gonzaga family who left no heirs. He follow the incompetence of Ferdinando Carlo; during his time was of the Spanish succession, and he decided to side with the French against the Austrians, but then he fled to Venice. He was declared a “felon” when the Emperor Joseph I in 1707, deprived him of his rights of dukedom and transfer them to the hands of the Hapsburgs.

When the Austrians entered the Ducal Palace, they found it in a deplorable state. They made use of the two medieval palaces facing into Sordello square (Piazza Sordello), for offices, accommodations and purposes of representation. In the second half of the century the San Giorgio Castle was turned into an archive. Other projects were partially completed. Many of these changes were carry on by the architect Paolo Pozzo who intervene in the palace, giving some apartments the neo-classical appearance that they still have today.

Modest intervention follow the Napoleonic time during 1812-1813, after which the palace was abandoned again. In the 18th century and for part of the 19th century the San Giorgio Castle housed the city’s jail.

Finally at the end of the 19th century, many buildings were demolished. Questionable urbanistic and aesthetic decisions led to the destruction of the Palazzina della Paleologa, the exedra of San Pietro and the theater, as well as the elimination of the 18th century superstructures in the Captain Palace. Since the last century a different approach has been taken; in particular the restoration of the twenties and thirties were necessities to rectify the serious level of desertion, and extensive interventions were made. From that time on continuous interventions have been taking places through time to ensure his preservations in time.

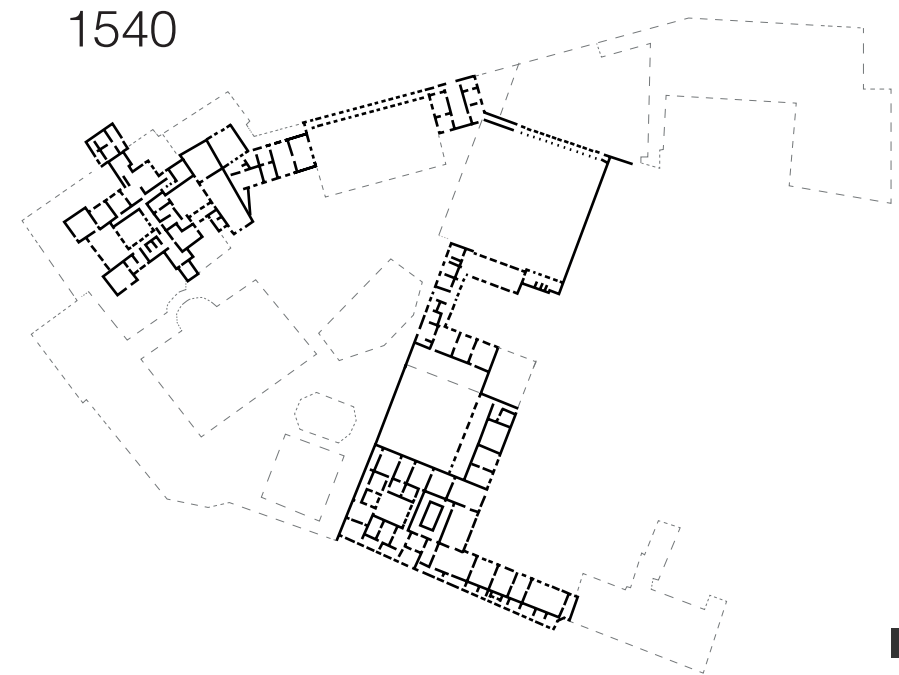
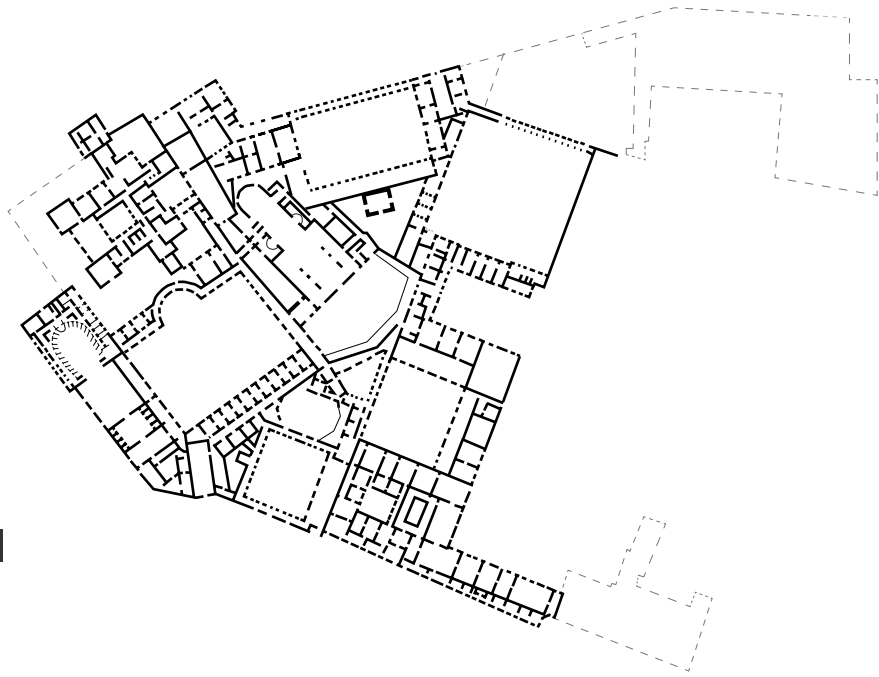


Fig.5:
Master plan of the Ducal Palace in 1540
Illustration drawing by,
Elaraby Dina, 2017

1630



As a summary we can say that the Palace comprises a series of spacious rooms, corridors, studies, hanging gardens, large staircases, galleries, smaller rooms and courtyards. Its display of wealth, art and power were clearly intended to impress its visitors. Over a space of four centuries a city arose within the city: 34,000 square metres, 500 rooms, 15 gardens, squares and courtyards

1.3 THE TRANSFORMATION OF THE PALACE FROM RESIDENCE TO MUSEUM

As we have discussed before this palace holds a lot of history and changes through time, but what happened between Palace and the museum? How this change took place? In this sub-chapter, I will present the research that I did to understand this passage. As a first thing, it's important to position us in the time when this happen. The transformation took place between 1887 and 1938. During this process, we need to understand that there have been a lot of alterations and interventions to the palace but also different maintenance procedures which have contributed to the conservation of the building. Lisa Valli in her Ph.D. thesis titled "La Metamorphosis architettonica del palazoin museo", placed and hypothesis where she considers the palace as an "architectural organism" which is both unique in its size and complex stratification, and, at the same time has a great similitude to other great historical and architectural complexes typical of the region, due to their similar possibilities of conservation and fruition. She understood this process as a result of political, social and cultural instances that shape the museum as we know it today.

A first phase took place between 1707 and 1866 thanks to the transformation of the multifunctional Court into an architecture deprived of meaning and function, due to the political arrangements that relegated Mantua to the imperial periphery. After the reign of the Gonzaga's as we mentioned before came the Austrians using Mantua as a peripheral province. A second stage can be identified with the two decades following the Annexation of the Province of Mantua to the Italian Kingdom (1866), which ended with the takeover of the Palace by the Ministry of Education (1887). The Court, registered among the buildings forming the Estate Endowment of the Crown (1868), became a legacy of a Nation to be built, in which such a legacy, at least initially, did not have a clear role. This phase also witnessed the progressive recognition of the "monumental value" of the Ducal Palace in Mantua

Fig.1.6:
Master Plan of the Ducal Palace in 1630
illustration drawing by,
Elaraby Dina, 2017

The first interventions, marked by a mainly conservative character and performed by state initiative, were manifestations of this process. Following the Ministry of Education taking charge of the Palace, the first vicissitudes of the Palace as a monumental site regularly open to the public began (in October 1887). As a result, the first major interventions took place on the initiative of the appropriate Regional Office for the Conservation of Monuments. The interventions, made possible mainly through the contribution of the local authorities, were partially carried out as a step of the process of urban transformation and 'isolation' of the monument and, partly, to ensure its preservation and accessibility. Once again, the monumental complex had to find a new function: the 'Museum', wonderful but lost since 1627, became a 'Museum-pretext' through an 'inventio', justifying the acceptance of the architectural complex, and as a symbol of the pre-unification past of Mantua.

The conception of the museum is outlined through the analysis of the progressive stages of the rediscovery of the vocation of the Palace as an exhibition venue and the drawing up of the Convention between the State and the Mantua institutions for the transport of the civic collections in the Palace (1915), up to the concrete design of the spaces and the location of the museum (1921). In the first post-war period, the conditions required for the construction of the project of the Museum were ready. The finding of the resources needed for the affordability of the initiative of the Museum was closely related to the immediate and pervasive adherence to Fascism that was manifest in Mantua and that ensured, both directly and indirectly, the government support. The architectural interventions needed to transform the palace into a museum mainly took place between 1923 and 1938. The Museum was presented for the first time in its entire configuration on the occasion of the Iconographic Exhibition of the Gonzaga's family (1937). While the majority of the great Italian museums was established after the Second World War, the Museum of the Ducal Palace in Mantua was made almost twenty years earlier, by 1938.

However, some interventions that occurred in the 60s must be remembered as necessary premises to the comparison with the architecture of the Palace today, such as those mainly aimed to refit the museum and to recover its decorative wall paintings cycles.

The Palace Museum thus began its adventure as a repository of civic collections and museums, and eventually, in the second quarter of the twentieth century, it firstly became a 'claimed Museum', demanded both by the citizenship and by the State which, through this, tried to build their image, and finally it has aligned to the Italian State Museums, in the vicissitudes and purposes, as well as in the lack of resources and yet in its excellence.

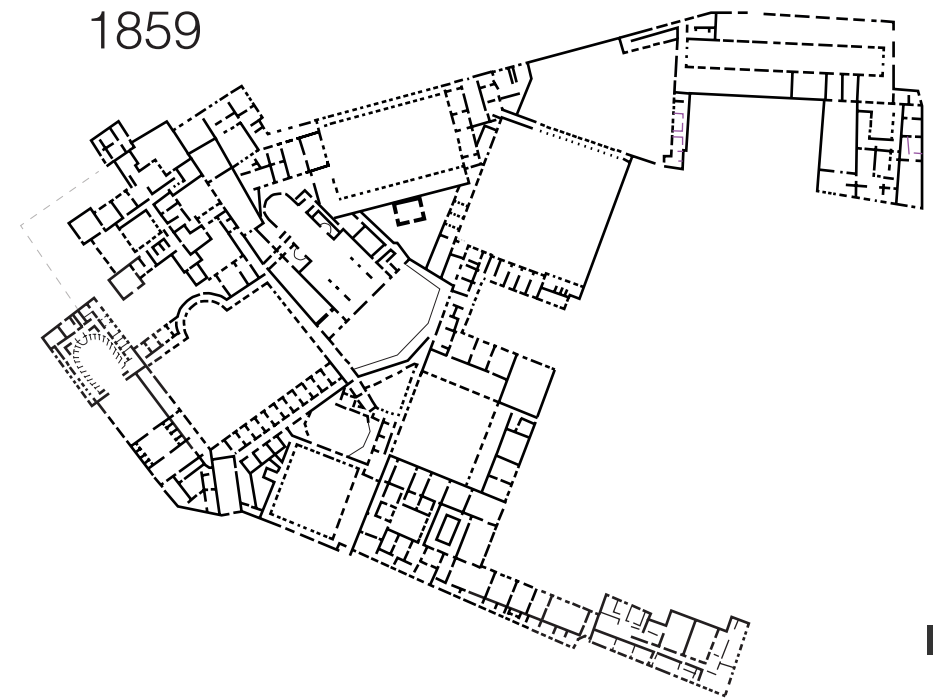


Fig.1.7:
Master plan of the Ducal Palace in 1859
illustration drawing by,
Elaraby Dina, 2017



CHAPTER 2 : ANALYSIS OF THE DUCAL PALACE

Since It has been covered the history, the next phase is understanding the site where the project take place. Taking under consideration that the building already exist, The first step on the design process is to do a survey. The oxford dictionary defined the survey as: *“Examine and record the area and features of (an area of land) so as to construct a map, plan, or description”*. On this chapter will be explain the process of surveying to understand the existence condition or the area to intervene.

2.1 SITE OF INTERVENTION AND IMMEDIATE CONTEXT.

Prior to the survey, It is necessary to mention some points that i consider relevant to mention. On the fig. we can see where the palace is located on the city of Mantua, while in the fig. ... , it is been highlight the area of intervene, that now a days correspond to the entrance of the museum, the locker room, the bookshop, a media room along with offices, the bathrooms and vending machines, and finally the courtyard connected to the main staircase that leads you to the path of the museum.

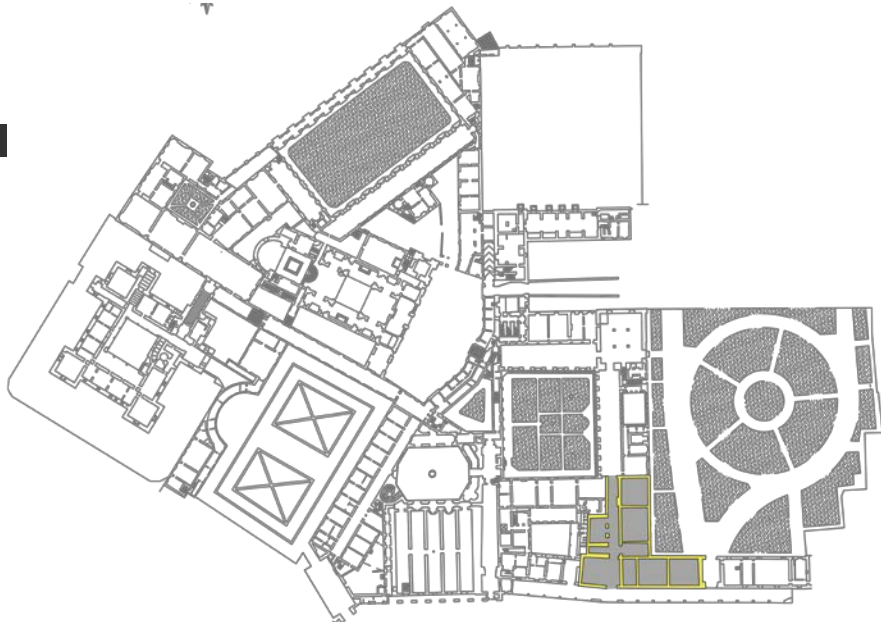


Fig.2.1(above):

Map of the city of Mantua (highlight the Ducal Palace),
Illustration drawing by, Federico J. Gancedo, 2017

Fig.2.2(bellow):

Plan of the Ducal Palace (highlight the project area),
Illustration by, Federico Gancedo, 2017

2.2 SURVEY OF THE ACTUAL SITUATION

By doing a survey it made possible to obtain a detail evaluation of the palace's condition and inspect any particular detail that could be useful to consider later on the develop of the project. The surveys are also known as condition surveys and include all kind of surveying; structural, thermographic, soil, site, valuation, or 3d laser, just to mention some. In regards of the area to work since actually is in use, does not present mayors issues that can usually be identify in this kind of building when they are abandoned or they are in a decay state. So basically the aim of this survey consisted on documenting the present condition, identifying some deterioration, to prevent problems in the future.

The survey of the Ducal Palace was made by a team of students that were also working on this area. The first task was to measure every room to intervene. As we can see on the Fig. ... the project area is divided in 7 rooms, plus the open cover spaces that link the areas. The first room correspond now to the locker room. The second is the actual bookshop. The third one has no specific use more than the actual entrance to the museum. The fourth room is where people present their tickets to begin the path of the museum going up on the stair case. The fifth room has a mix use between offices and media room where now a video is projected. The sixth room is where the bathrooms and bending machines are located. And finally the area number 7 is an open courtyard that contains the staircase, and connect different parts of the palace that are not open to the public.

For the survey we used laser distance and a plan that was provided to the students, from which we needed to control and change if something was out of place. After the survey was concluded, photos were taken to made a sort of collage of the interior views, to highlight the actual situation. On the next pages it is possible to see the final result of the survey.

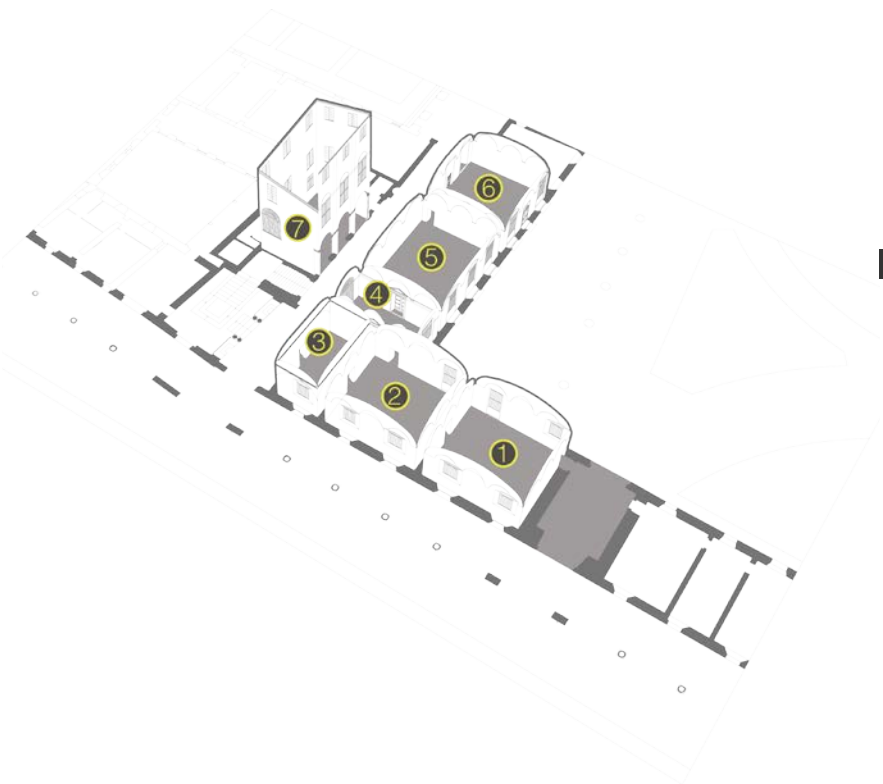


Fig.2.3:
Axonometric illustration of the general area of the project
illustration drawing by,
Federico J. Gancedo, 2017

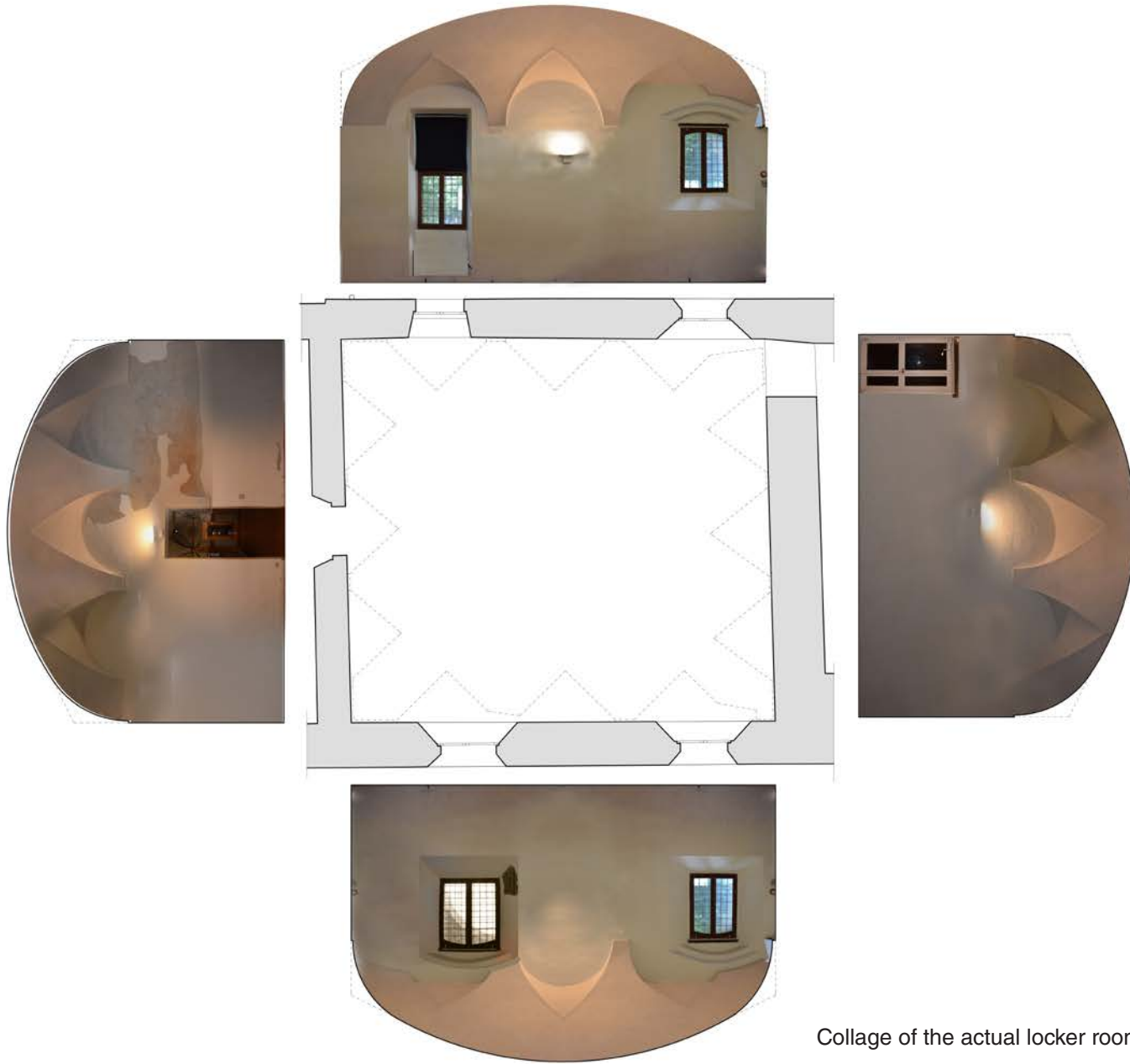


Fig.2.4:
Collage of the actual locker room (plan and views of room 1),
illustration made by,
Federico J. Gancedo, 2017



Fig.2.5:
Collage of the actual bookshop (plan and views of room 2),
illustration made by,
Federico J. Gancedo, 2017

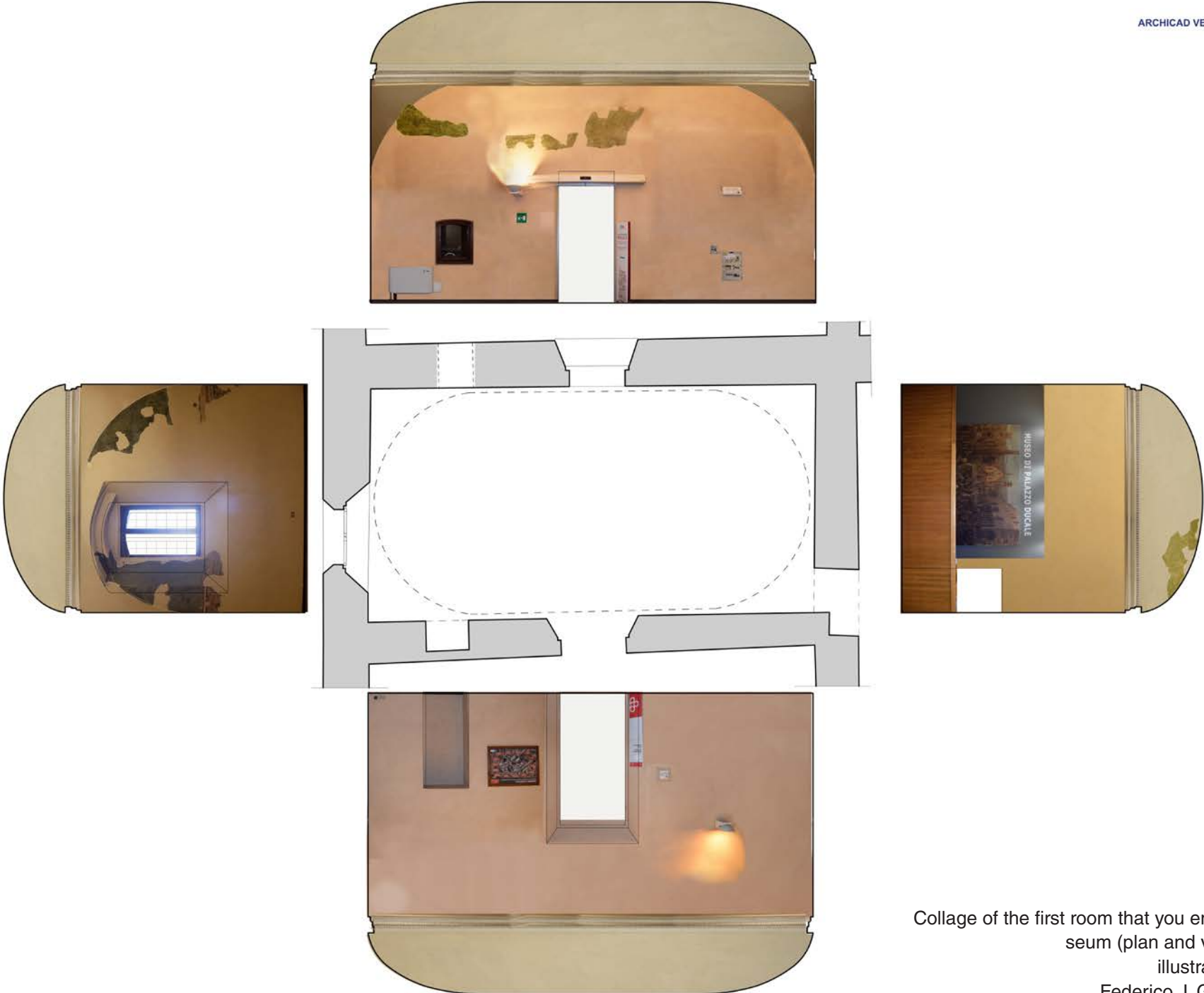


Fig.2.6:
Collage of the first room that you enter at the museum (plan and views room 3), illustration made by, Federico J. Gancedo, 2017



Fig.2.7:
Collage of the area where you present the ticket
to entrance to the museum (plan and views of
room 4),
illustration made by,
Federico J. Gancedo, 2017

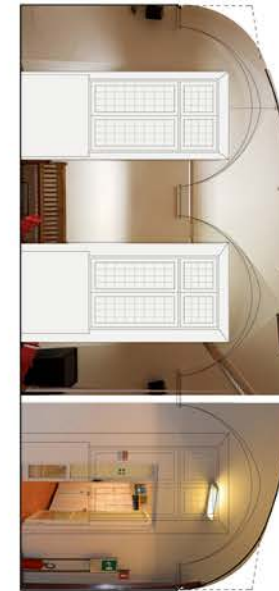
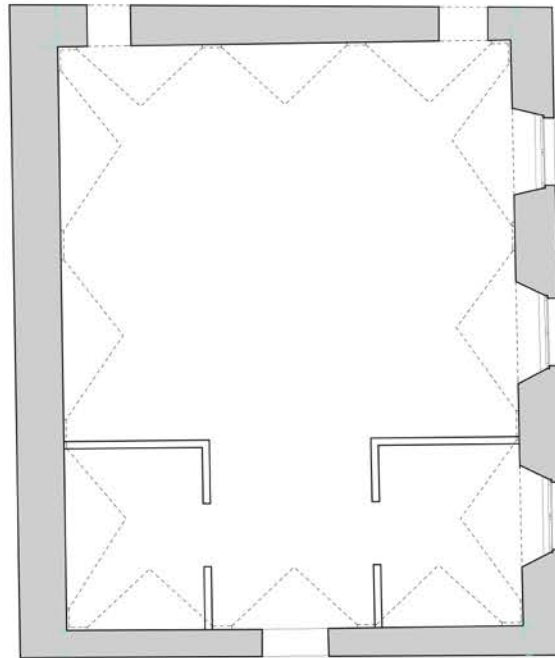
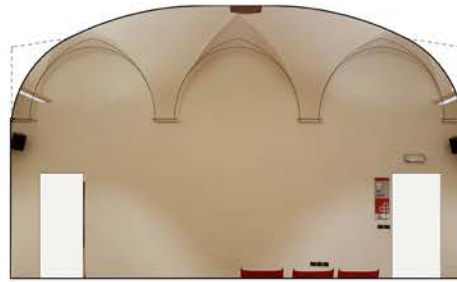


Fig.2.8:
Collage of the media room and offices
(plan and views of room 5),
illustration made by,
Federico J. Gancedo, 2017



Fig.2.9:
Collage of the bathroom and bending machines area (plan
and views room 6),
illustration made by,
Federico J. Gancedo, 2017

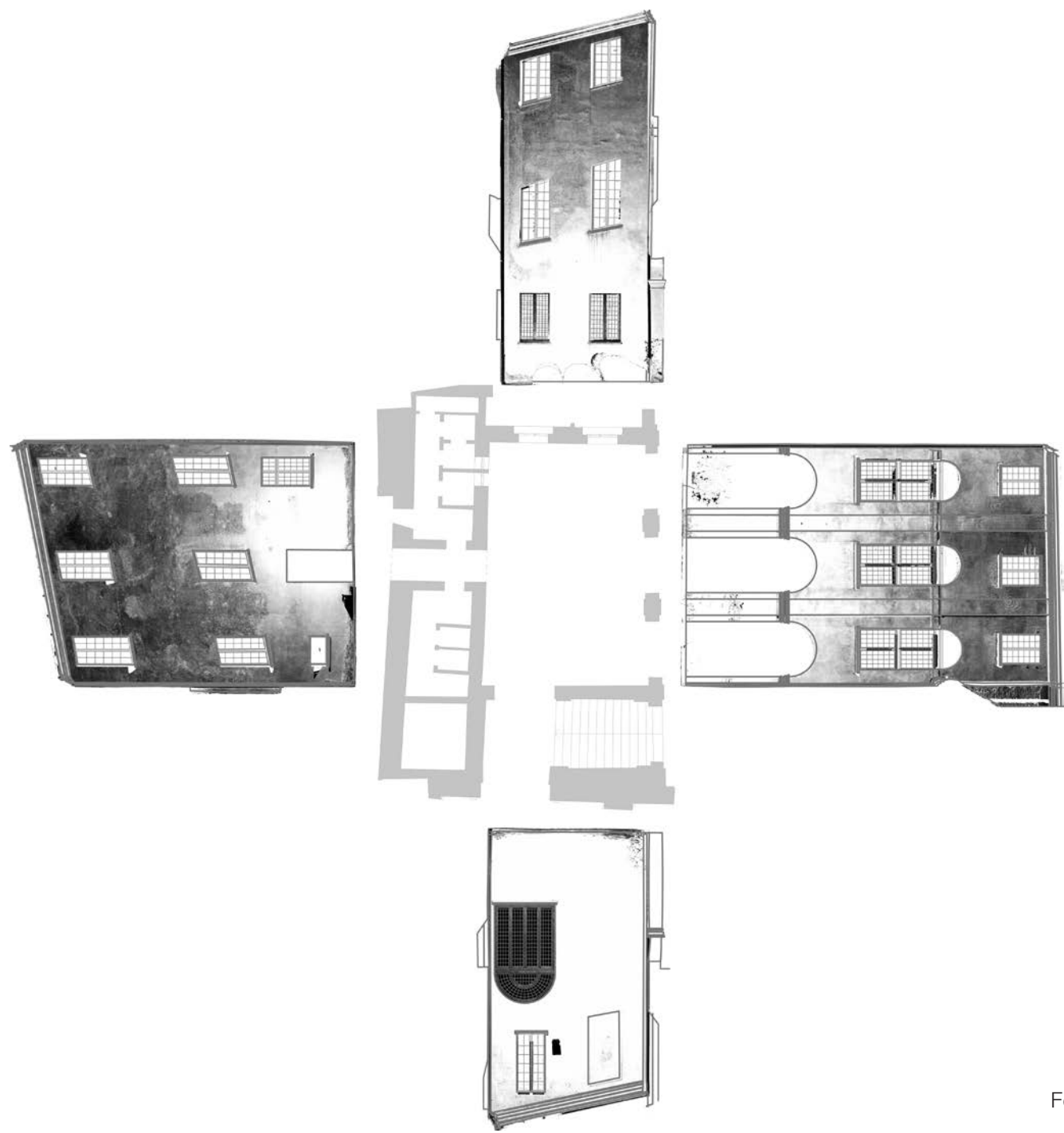


Fig. 2.10:
Collage of the courtyard
(plan and views area 7),
illustration made by,
Federico J. Gancedo, 2017

2.3 DIAGNOSES OF THE AREA TO INTERVENE.

In the matter of diagnoses as it has been mention already is not the aim of this project and even when the Palace have plenty spaces to even built a thesis on survey and analysis of decay and/or similar topics, since the project occurs in a historical building it is important to mention if there is any kind of problems or situations to consider before proceed to design something. Since the project area is part of the existing entrance of the museum there are not mayor structural issues to consider, but some humidity stain marks in some spaces like it can be seen in the Fig. 1.12. Other aspect value to mention is that there are some rooms on the ground floor that still have original frescoes like in the Fig. 2.11.



Fig. 2.11 (above):
Photo of the interior that shows some frescoes that still exists.

Fig: 2.12 (Bellow):
Photo showing the walls affected by humidity,
Photos taken by,
Federico J. Gancedo, 2017

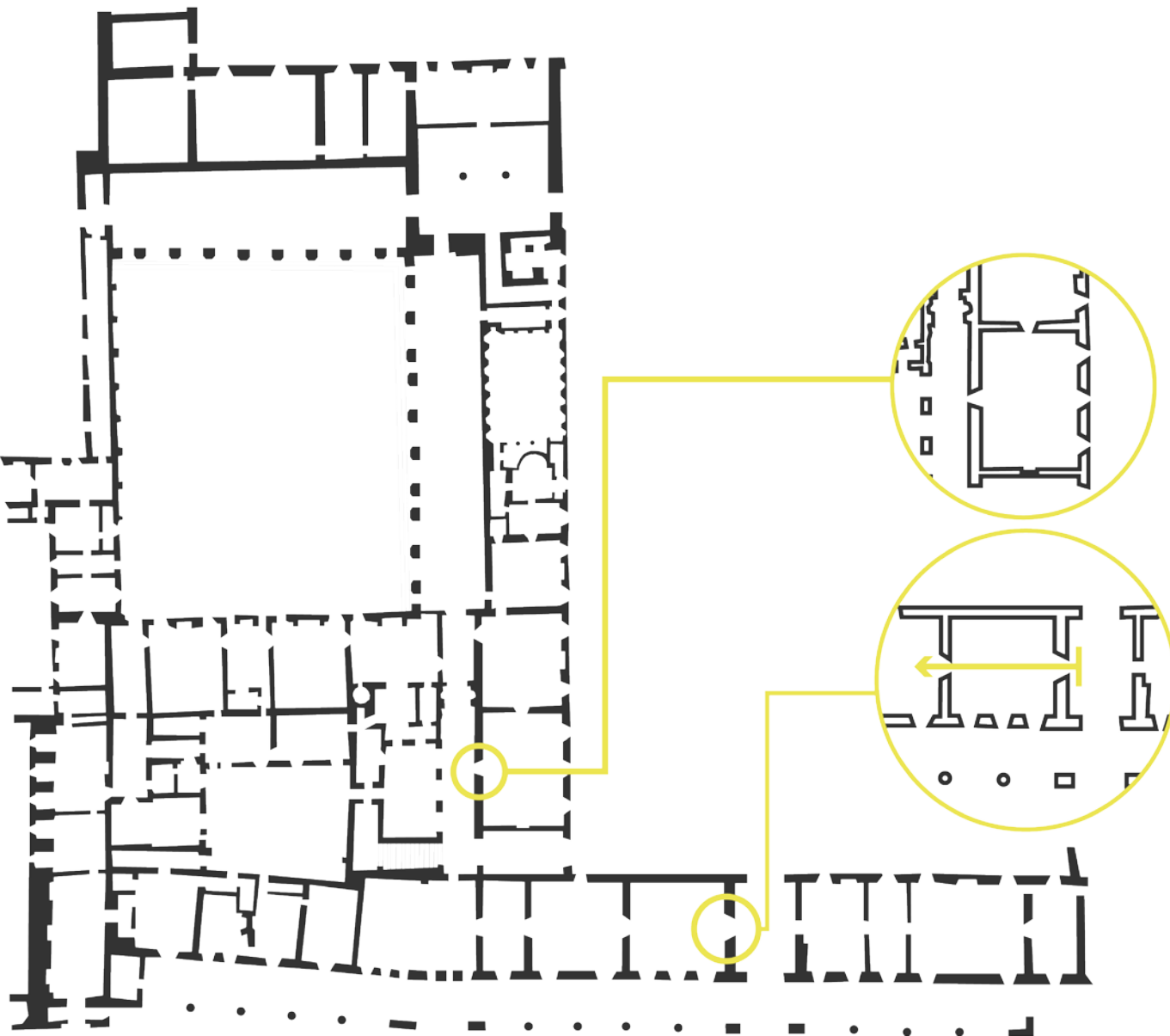


Fig. 2.13:
Master plan of the Ducal Palace in 1773,
that highlight the proof of a previous existing
entrance to the palace.
illustration drawing by,
Federico J. Gancedo, 2017

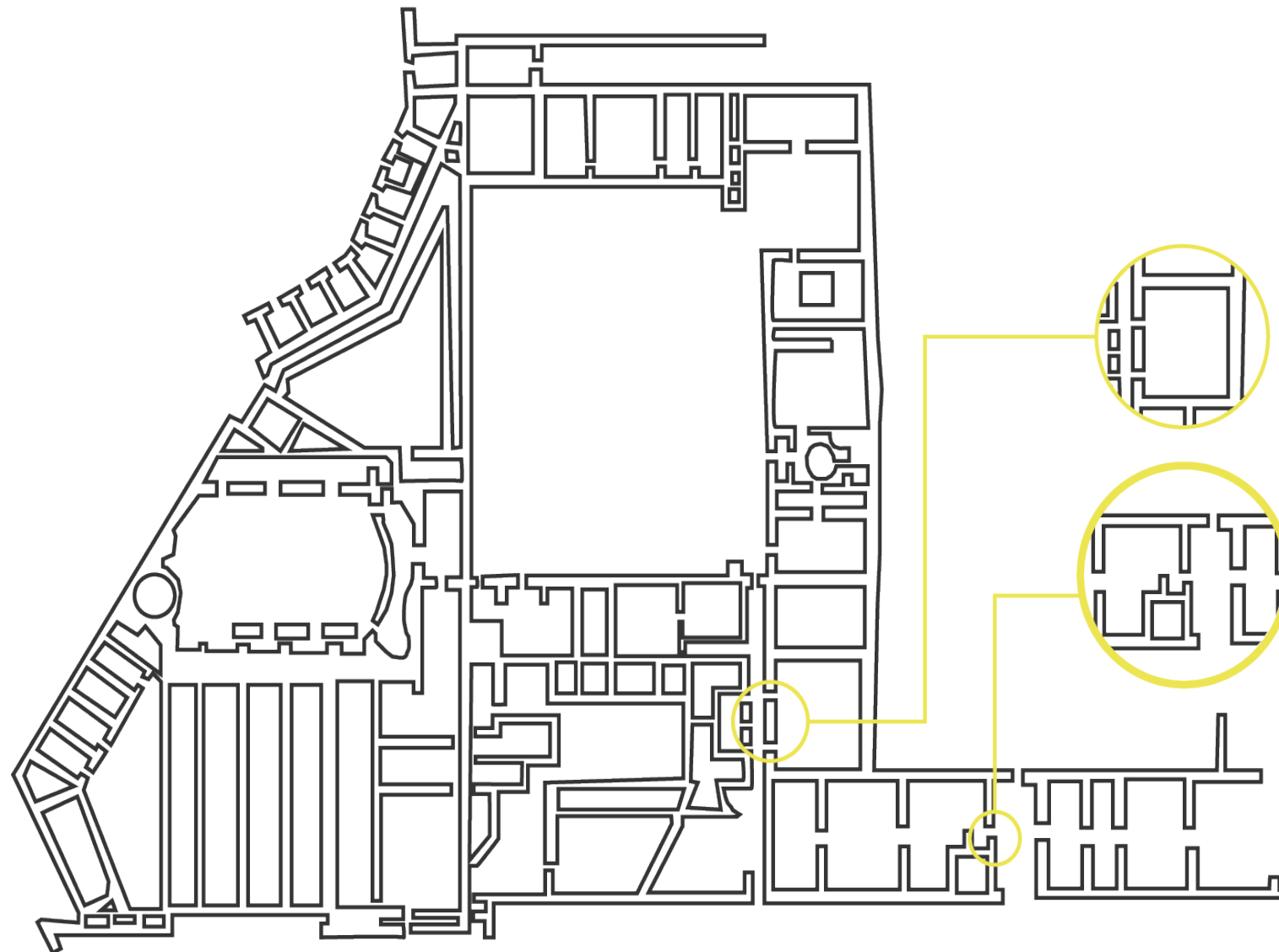


Fig. 2.14:
Master plan of the Ducal Palace in
1870, that highlight the prof of a pre-
views existing entrance to the palace.
illustration drawing by,
Federico J. Gancedo, 2017

CHAPTER 3 :

CASE STUDIES

After the research about the city and the palace, along with its evolution and transformation from the residence to the museum that we know today and concluded the survey, it is time to move to the next phase on the project. On this chapter will be discuss the case studies that later on help to develop the proposal. But before an analysis of the case studies, and since our project takes place in a historical building, I consider important to understand the transformation of these type of buildings in museums.

3.1 THE TRANSFORMATION OF HISTORICAL BUILDINGS IN EXHIBITIONS SPACES.

As we cover in the preview chapter the Ducal Palace is a historical building loaded with many layers and stratifications from different times as a result of many changes given on the uses through these 700 years. But, how historical places became museums? What can we do on these types of buildings? What is the best approach? There is not a perfect answer for this, nevertheless I found that there are concepts, ideologies and considerations to take into account in these cases, and that is on what I will focus on this first part of this chapter.

Even when I would just focus only on the entrance, exit and other services on the ground floor, I acknowledged that it was important to understand which would be the best approach to this kind of project, and so I started a research about historical buildings that became museums, in order to make a proposal.

The museums in historical buildings is as wide as the world itself so I will try to make a special a brief study about this topic. Antonella Huber on the book *Italian Museum (Il museo Italiano)*, mention how due to the fact that there is a lot of heritage around Italy, the museums in the country usually adopt a character as she describes it as “internal Museum”, where the design consist on the balance between these monumental buildings and the new uses. This idea of “internal Museum” came as a result of the lessons of the museographer’s concepts develop in the fifties. The great tradition of the “internal museum” as Palazzo Bianco, to mention an example, are not a question of models but a lesson of methods, not so easy to apply. Everything start with the interpretation of the historical monumental merits of architecture.

It was not until the beginning of the 19th century when influential people started to pay attention to this matter. Quatremere de Quincy was one of these voices. He emphasizes on the idea of “authenticity” in the interpretation and in the use of monuments. Nevertheless, the idea of authenticity left a number of different interpretations. Violet – Le – Duc different than others like Ruskin for instance, hold that “authenticity”, was linked to the concept of “original purity”, meaning that everything added after the time of the creator needed to be eliminated, and unfinished parts should be completed, while Ruskin argue that the concept of authenticity was more linked to the idea of inactivity through the almost idolatry respect of the ruin.

On the 19th century the problem of the protection of monuments became a dispute between two points of view: on one hand, the idea of “restoration” and on the other the idea of “conservation”. Eventually the only way to deal with this situation was to set a series of considerations in order to defined certain principles. One to remember is the one that was hold in 1931 in Athens called the “Charters of restoration”. This help to create a relationship between ancient and new, especially in architecture. By pointing out of the values of cultural assets, Riegl permitted an understanding of the relativity of the 19th century model on monument as a total work of art and open the discussion of new concepts about conservation. So, in a way renewal, rehabilitation, recovery, renovation, restructuring and reconstruction are the dictionary definitions of the possible interventions on buildings.

The evolution of the cities and need for the people does not line up with a concept of perfect preservation, so I came into scene this idealistic concept of passive musealization. When we face the problem of the rehabilitation of historical architecture, the intervention must, from the start, clarified in etymological terms too. Re-use for instance (refer to a building abandoned of the original use for a certain amount of time), is used again. Conversion on the other hand is an arbitrary change in use which can lead to a partial or total cancellation of the preexistence interior. Le Corbusier used to think that This solution must not be seen as a bad thing. The transformation of historical buildings is after all an intervention in architecture, it cannot be reduced just to the concept of "filling in" in style but must emerge as a *"system of the spirit that fixes the sentiment of an era in the material world"*. It is always new architecture so, it cannot adhere passively to a program imposed by contingencies but must find its reasons to be in the autonomous redesign of its plans. This contemporary architecture, even when it appears inside a historical building and intend to conserved the unity and integrity of the structure, need to consider certain elements like composition, selection and assembly of forms and materials. But the integration of the new with the old is not just a question of materials and forms, you must know how to choose the marks of history, you have to choose, construct, sometimes even demolish. To intervene on a historic building, with the intension of modifying its use and function may involve removing as well as adding. Later on, we will see case studies like Castelvecchio in Verona, where this concept applies.

Antonella Huber conclude that: *"Our is an era of paradoxes that has passed from blind destruction to the passive museification. The historical building abandoned by today's society because advance state of decay, or obsolescence or cessation of activity are of various sizes and types; they are no more monuments, but they as still living organism of the cities that contemporary architecture must graft the functional power of the new onto the ancient, creating a dialogue between them, It will no longer be a mere restoration but a strengthening of the monument transforming it into a new work of art"*.

3.2 EXAMPLES OF MUSEUMS IN HISTORICAL BUILDINGS

CASE STUDY 1:

Project: Galleria Nazionale

Architect: Guido Canali

Location: Parma, Italy

Year: 1977–87

The Palazzo della Pilotta is a complex of edifices located between Piazzale della Pace and the Lungoparma in the historical centre of Parma, region of Emilia Romagna, Italy. Its name derives from the game of pelota played at one time by Spanish soldiers stationed in Parma.

Built around 1583, during the last years of reign of Duke Ottavio Farnese. The existing complex includes three courts: the Cortile di San Pietro Martire (now best known as Cortile della Pilotta), Cortile del Guazzatoio (originally della pelota) and the Cortile della Racchetta. The Pilotta was to house a large hall, later turned into the Teatro Farnese, the stables and the grooms' residences, the Academy Hall and other rooms.

After the end of the Farnese family rule of Parma, much of the movable assets of the palace were removed by then Duke Charles I, later King of Spain, and taken to Naples in the 1730s. The Biblioteca Palatina was established here by 1769. Elizabeth Farnese, Queen of Spain, was born here in 1692.

By 2015, the building spaces had been taken up by a number of cultural institutions and museums. The Galleria Nazionale and reconstructed theatre, the building now houses a number of important institutions, such as the Bodoni Museum of Printing, the National Museum of Antiquities and the Palatine Library. The Galleria Nazionale was constructed to accommodate the Farnese family's enormous and prestigious collection of paintings and sculptures.

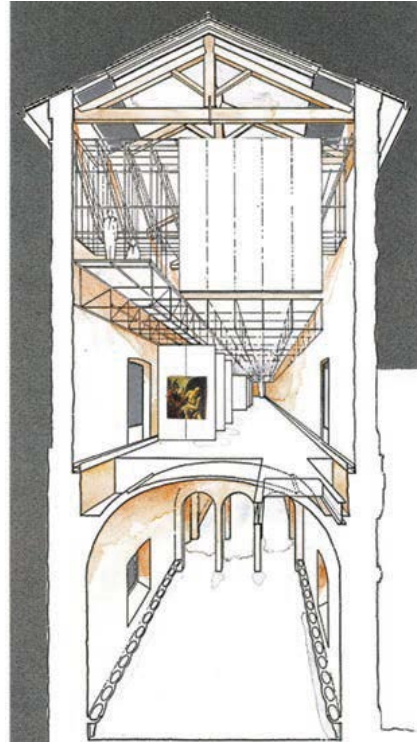


Fig.3.1 (Above):

The museum journey begins and ends in the wooden Farnese amphitheatre, from where a long steel-and-timber walkway leads up on to the stage.

Fig.3.2 (Below):

Outside view of the facade of Palazzo della Pilotta



Concept

The museum is composed by three large, disconnected buildings: the Farnese Theatre, the 100-metre (330-foot)-long west wing, and the ex-stable block that completed the north side of the courtyard. Canali's strategy was to connect these three disparate spaces via a single route – a continuous passageway that ensured that the visitor moved through the museum without ever taking the same path. Canali completed the design of the new interior over a period of ten years. The initial task was to strip the building to its bare essentials, removing all of the insensitive accretions added by the military and strengthening the structure, roof and some of the walls of the building. Archaeological finds were incorporated into the remodeling strategy.

Organization

Canali decided to locate both the starting and finishing points of the museum in the reconstructed Farnese Theatre. This was located conveniently close to the stone staircase entrance at the southern end of the building. Thus the timber horse-shoe-shaped structure became the dramatic entrance to and exit from the journey through the museum. To reinforce the drama of this journey, Canali placed a long, slender steel ramp in the center of the theatre, leading up to the stage. Walking through the proscenium arch initiates the journey into the museum and conflates the relationship between audience and actor. The large backstage volume is traversed by a raised walkway connecting to the side of the stage. This passes westwards across the space towards the long, thin wing. The journey is punctuated by a series of packing cases, irreverently displaying statues and sculptures as though only partially unloaded. A bridge through to the west wing precludes a sharp turn to the right and a view down the 100-metre (330-foot)-long corridor. At the end of this journey another stair junction turns the visitor right into the north wing and into the lower level of the old stables. Canali restructured the fragile stable walls and ceilings with a temporary scaffold structure. The floors of the stables were exposed to show the vaulted stable roofs and a system of ingenious brick shafts, thought to have been either channels for ventilation or for horse food in the stables below. The journey back through the museum is via an upper level in the long corridor, looking down upon the previously passed-through gallery. The final sequence is through the lower level of the backstage area and then underneath the stage, where the visitor enters the theatre auditorium stage left, thus completing the cyclical journey without ever retracing their footsteps.

Fig.3.3(left):

The adaptable trellised steel beams support the floors and walls of the museum .

Fig.3.4(right):

The lower wing is on two levels; the raised walkway on the left is the route back to the start .

Detail

The Farnese Theatre and the long west wing were difficult to alter radically because of their historical importance (theatre) and their distinct dimensions (wing). The stables, however, could be significantly altered without diminishing their archaeological and historical significance. Canali used a system of adaptable trellised beams here. This framework of scaffolding was used to hold the floors and walls as well as paintings and sculptures. The system could be adapted, when required, to host new configurations of objects whilst still fulfilling its structural role.

The off-the-peg quality of new elements was also utilized in the backstage area, where the raised walkways appear temporal, constructed from steel poles and with a wooden decked floor. Tension wires brace the structure and are reminiscent of the backstage fly-tower machinery that the theatre once housed. The west wing is a more solid affair, with sandstone floors, polished stucco walls and elegant steel and encaustic panel display systems set against the rough masonry of the existing building. The materials throughout the space were chosen in order to clearly distinguish the new from the historic fabric of the building.



Fig.3.5 (above):
The final part of the journey back to the theatre takes place under the stage and then out into the main auditorium.

Fig.3.6 (below):
Painting exhibition space, Museum Palazzo della Pilotta

CASE STUDY 2:

Project: Castelvecchio Museum

Architect: Carlo Scarpa

Location: Verona, Italy

Year: 1958–73



Fig. 3.7 (Above):

A collage showing how Scarpa tried out the statue of Cangrande in various different positions before settling on its eventual location.

Fig. 3.8 (Below):

The façade of the east wing after remodeling, with the statue of the Cangrande finally positioned to the left.

Context

The Castelvecchio ('old castle') was originally constructed in the fourteenth century as a fortress and castle for the della Scala family. It incorporated several existing structures dating from Roman and medieval times, including the eighth-century church of San Martino in Aquaro and part of the twelfth century city wall. The position of the building was strategically important; it assured the family's control of Verona whilst also providing them with an escape route via a fortified bridge over the River Adige.

The buildings were transformed into a military garrison during Napoleon's occupation of the city. Two large barracks were constructed between 1802 and 1806, along the north and east sides of the main courtyard. The castle was first converted into a museum by Ferdinando Forlati and Antonio Avena in the 1920s. They remodeled the barrack interiors in the manner of an early Renaissance palace. Then, in 1958, Scarpa was commissioned to undertake a new renovation that would interpret the original building and expose the changes that had happened to it over time.

Concept

The approach of Carlo Scarpa to remodeling was based upon an interpretation of the meaning of the original building. He endeavored to understand the historical and contextual qualities of the place and then to communicate this narrative by applying a new contemporary layer. The layers of the building were scraped away or exposed, in response to the three main historical periods of the building's history, until clarity was achieved. This intervention then led to a series of small and beautifully composed additions that were carefully imposed upon the building.

Organization

The main entrance to the museum was through the gate and courtyard gardens of the castle. Scarpa moved the entrance from the centre of the barracks to the north-east corner of the wing. The first set of museum rooms were arranged enfilade on the ground floor. They led to the bridge and then to the west wing, through which the visitor returned on the upper level of the museum back to the start of the journey. The simplicity of the organization belied the complexity of the approach to remodeling.

The project began with a sequence of excavations, stripping the building back to its essential elements. These exposed important junctions where historical evidence was at its most compelling. These became the sites where the placement of objects or materials could then take place. The first excavations uncovered the Porta del Morbio, an underground passageway that once linked the castle to the bridge. This site of key archaeological change led Scarpa to the placement of the most important sculpture in the museum, the Cangrande I della Scala.

The statue was placed atop an external concrete plinth and formed a metaphorical 'hinge', linking both east and west wings of the museum. A new hanging bridge was constructed, affording the visitor elevated views of the statue and linking the Torre del Mastio, or castle keep, to the museum wings. The statue is seen many times during the journey around the museum. The first time is upon entering the castle grounds: it can be observed in profile in its sheltered position under the eaves of the roof of the east wing. A close-up view occurs as part of the journey through the museum from the west wing as the visitor passes through the old city wall.



Fig.3.9:

The first set of rooms on the ground floor are arranged as an enfilade, with paintings and statues directing the visitors' view and thus movement through the space.

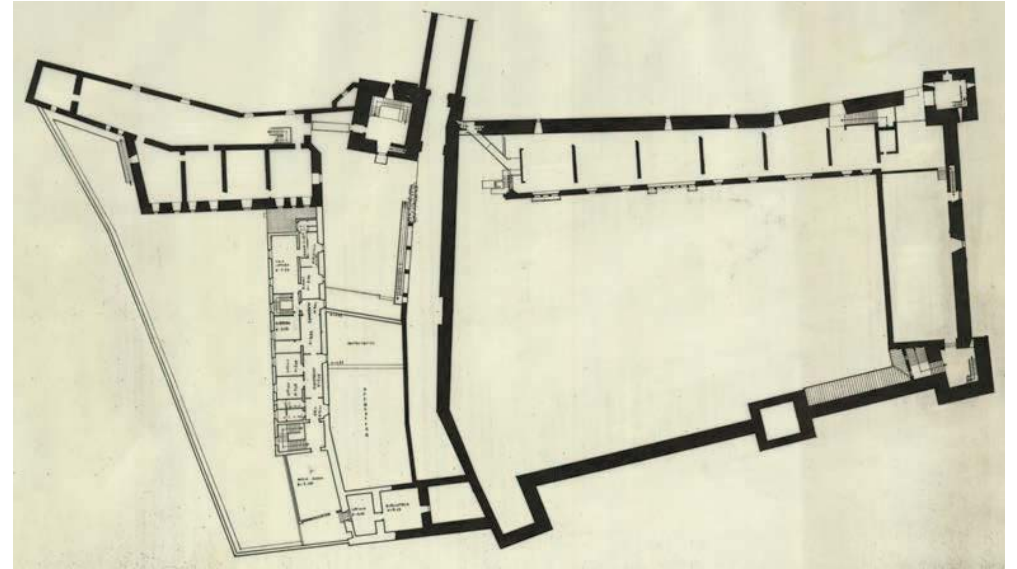
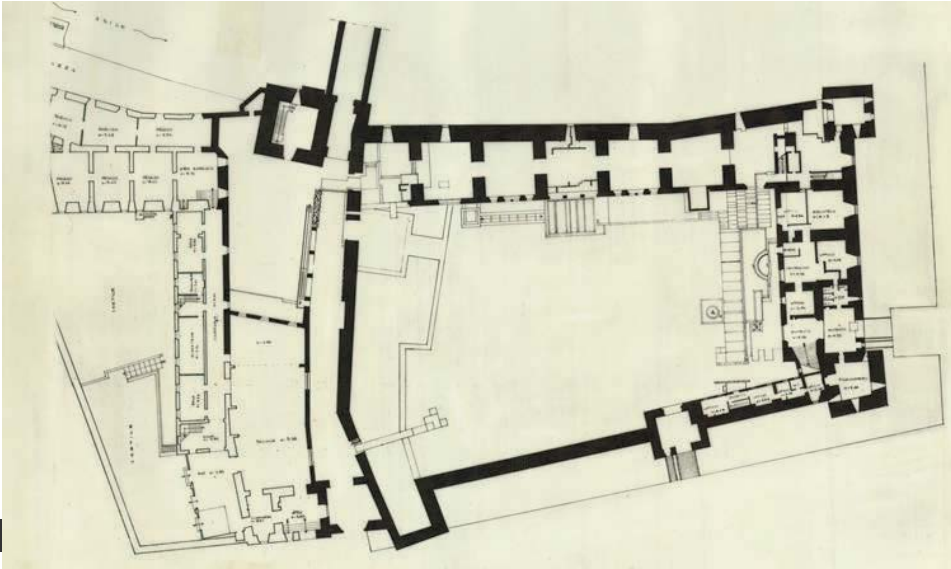


Fig.3.10 & 3.11:

Above Ground-floor and upperfloor plans.

- 1 Entrance; 2 East wing; 3 Porta del Morbio; 4 West wing;
- 5 Sacellum (shrine); 6 Old entrance; 7 Statue of Cangrande;
- 8 Bridge over river; 9 Upper east wing; 10 Stair back to entrance
- 11 Temporary galleries

Detail

In the Castelvecchio the placement of the paintings and sculptures was used to orientate the viewer and direct movement and views through the space. Scarpa also used objects and contemporary materials to illustrate narrative breaks in the building's history; their placement is often used to emphasize an important junction.

The new entrance is formed from a plane that dissects the existing Gothic arched doorway. The threshold is split by the screen wall that returns at both ends to define the journey from interior to exterior and vice versa. The screen is constructed from a steel frame with a polished plaster infill. In the east wing Scarpa felt that the false Gothic symmetry of the Forlati renovation had to be disrupted. He achieved this by recessing new windows behind the old, as if part of another wall behind the existing one. The grid or rhythm of the new was deliberately not synchronized with that of the old façade, making it appear as though the exterior screen was scenery.

Throughout the museum, the same type of screen is used as an individual backdrop for specific works of art. Coloured, polished plaster is used to highlight the details of the displayed objects. Metal and timber sculpture plinths and painting easels are carefully detailed. Protruding from the façade Left The Sacellum's dimensions and appearance were designed to contrast directly with the proportions of the arch and the coloured plaster of the surrounding building.

Far left The top-lit Sacellum viewed from the ground-floor exhibition rooms. Above The pattern of the abstract grid of the flamed stone blocks of the exterior of the Sacellum was very carefully considered. Above left A sketch of the Sacellum. Light is carefully controlled in the space, and adjacent to the new entrance is the Sacellum, a small top-lit space accessed from the first room of the east wing. Its exterior is decorated with little blocks of flamed granite and Prun stone. These range in texture from smooth to rough, and from white through to pale pinks and reds. The configuration forms an abstracted pattern in the courtyard of the castle.

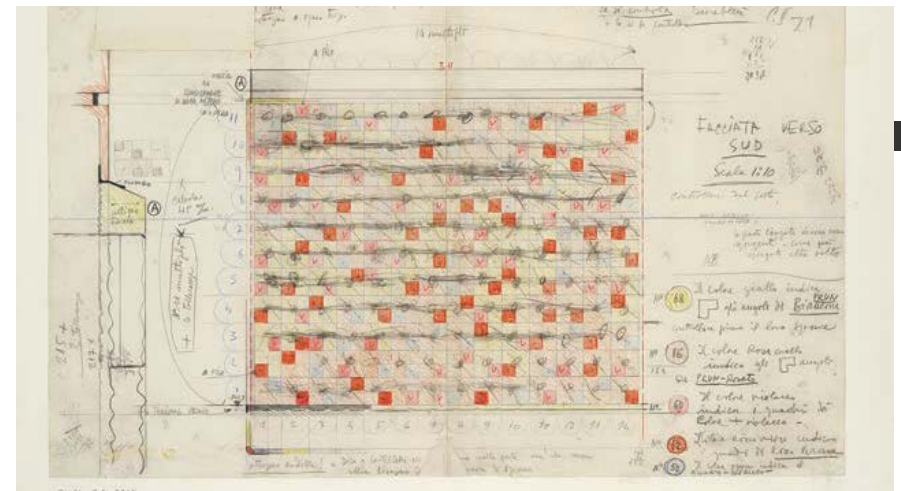
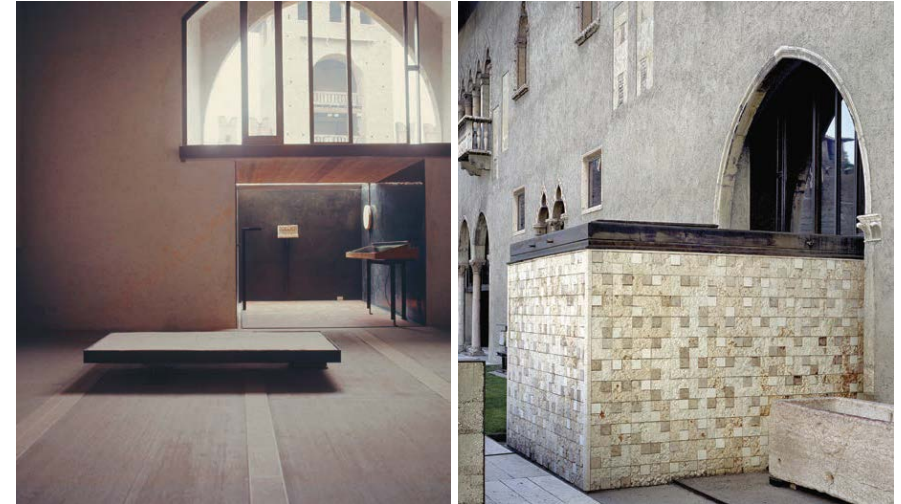


Fig. 3.12 (above):

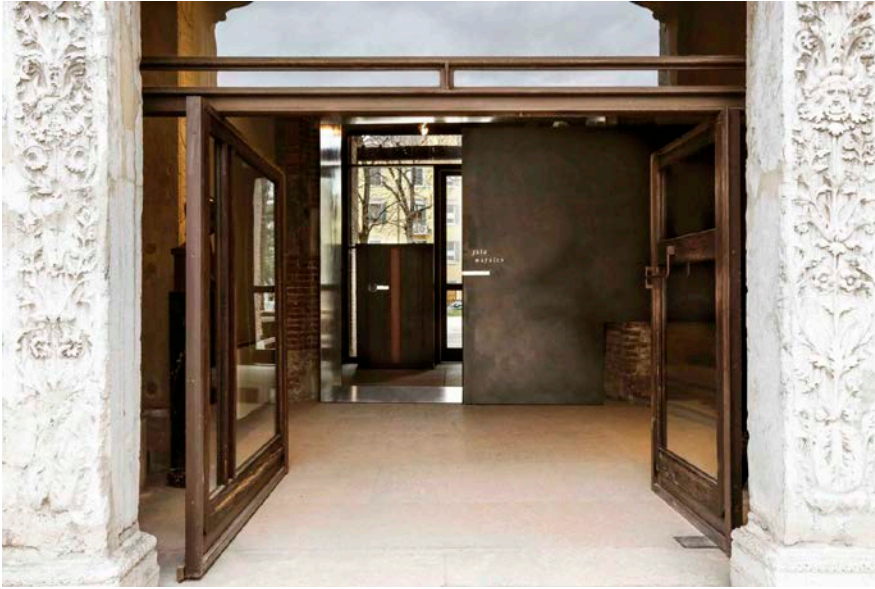
The pattern of the abstract grid of the flamed stone blocks of the exterior of the Sacellum was very carefully considered.

Fig. 3.13 (above):

The Sacellum's dimensions and appearance were designed to contrast directly with the proportions of the arch and the colored plaster of the surrounding building.

Fig. 3.14 (above):

The top-lit Sacellum viewed from the ground-floor exhibition rooms.



CASE STUDY 3:

Project: Castelvecchio Museum East wing
Architect: Filippo Bricolo & Bricolo Falsarella Associates
Location: Verona, Italy
Year: 2017

Context

Filippo Bricolo's project (Bricolo Falsarella Associates) for the Castelvecchio Museum regards the restoral of the central part of the East Wing which was left unfinished by Carlo Scarpa's masterful restoration in 1964. The fulcrum of the intervention is the new Mosaic Room designed to host a large fragment of Roman pavement from a second century AD domus which was discovered in the little square located on the east side of the castle between the ancient Via Postumia and the River Adige.

Concept

The renovation has restored dignity to this connecting room. An area on the side facing the square has been converted into lavatories and it is concealed by burned pitch-pine paneling, the same materials used by Scarpa to make the compass now present in the Mosaic Hall.

Fig. 3.15 (Above):
 Entrance for the new intervention east wing,
 photo by Nicolò Galeazzi

Fig. 3.16 (Bellow):
 Interior photo of the new intervention in Castelvecchio, Verona.
 photo by Nicolò Galeazzi

Organization

The new exhibition hall is connected to the main courtyard of the castle through a high access space that also serves as the entrance to Sala Boggian. A large and very thin iron panel delimits the dual nature of the hallway: on the one hand it acts as a necessary filter leading to the new Mosaic room and on the other hand, it indicates the way to the room on the first floor.

The panel seems to brush against the floor and the steps of the stairs and it bears two strategic, horizontal incisions on opposite sides thus indicating the two different directions. Above the incisions the words “Mosaic Room” and “Sala Boggian” are written in iron out of the fonts designed, but never used, by Scarpa for the concert hall entrance.

On a second level regarding the panel, is an archway formed by four, 10 mm thick, black iron plates. The archway has the role of determining a small ritual of access to the Mosaic Room. This is necessary in order to create an emotional gradient between the entrance hall and the exhibition space. Regarding lighting, the archway makes use of black iron’s reflectance characteristics to create dialogue between the two spaces. Standing in the entrance hall, the visible side of the archway reflects the warm lights of the Mosaic Room casting them towards the entrance area.

Iron also highlights the changing light at different times of day until they are unexpectedly warmed up by the onset of dusk. In the Mosaic Room, the same vertical side reflects the lights and colours of the museum’s courtyard into the Mosaic Room. In this way, the gateways becomes a hinge of reflections. This new threshold becomes a narrative device that divides but unites, that reveals but slows down, that creates distance but invites you to walk through.

Inside the new exhibition hall, the great mosaic seems to levitate in the bountiful space. The hall is characterized by high walls made of brick. The bricks were deliberately left visible without changing or deleting the patina of time. This helps to create a dialogue between the walls and the materiality of the ancient Roman floor.

The mosaic has been inserted diagonally into the space so as to be seen in its entirety from inside the room. This collocation also allows us to appreciate the view of the mosaic from outside the castle.



41



Fig. 3.17 (left):

Detail of the contrast between the new and old material, photo by Nicolò Galeazzi

Fig. 3.18 (right):

Detail of the insertion of a new opening into the old one, photo by Nicolò Galeazzi

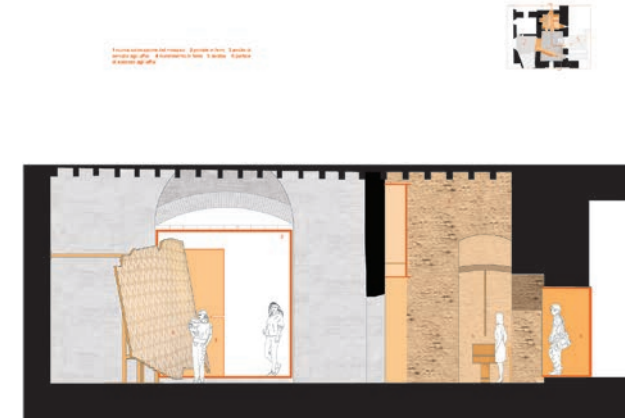
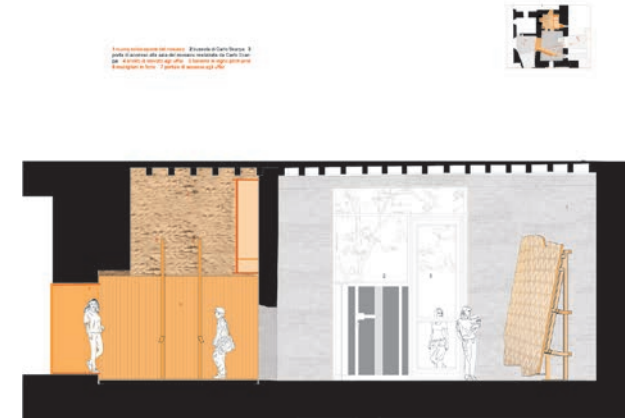
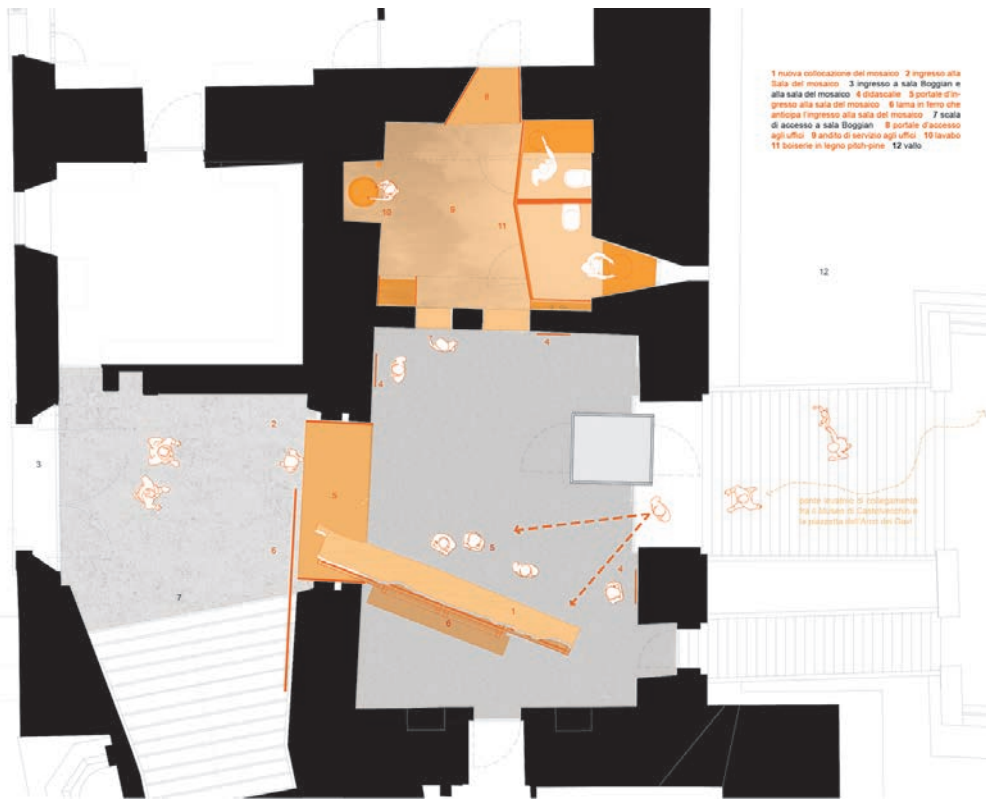


Fig. 3.19 (left):
Diagram Plan of the entrance of the new intervention on the East wing Castelvecchio.
Fig. 3.20 , 3.21 & 3.22(Right):
A series of sections diagrams of the new intervention on the east wing.

CASE STUDY 4:

Project: Santo António Museum

Architect: Site Specific Arquitectura, P-06 ATELIER

Location: Largo de Santo António da Sé, 1100-171 Lisboa, Portugal

Year: 2014



Context

The project is located in Lisbon's historical centre, in the border area between Baixa Pombalina and Alfama neighbourhood.

Concept and organization

The new museum replaces the existing one (contiguous to the church), and is expanded to a new area in an existing residential building constructed after the 1755 earthquake, that includes construction elements supposedly prior to that.

The space's original scale, geometry and identity were recovered by demolishing and clearing existing mischaracterized constructions. New exhibition panels were designed in consonance with the existing geometry, emphasising it and reinforcing the ancient stonework. These architectural and museographic new elements solve the museum's technical questions and stand out through its' precise scale and dimension.

Outside, a perforated metal plate covers the old museum's entire facade in order to clarify the existing building's geometries, hide technical elements and communicate the museum's identity. Its semi-transparency enhances the visual relation between the museum's interior and the square (where Santo António's statue stands), and allows the existing stone porch to be seen from outside.

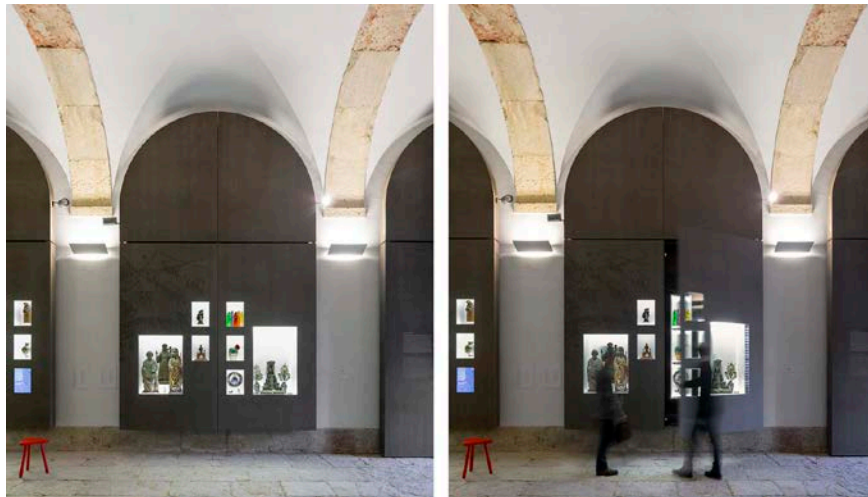


Fig. 3.23 (Above):

Photo of the facade for the new museum of Santo Antonio.

Fig. 3.24 (Bellow):

Interior photos of the intervention for the museum.

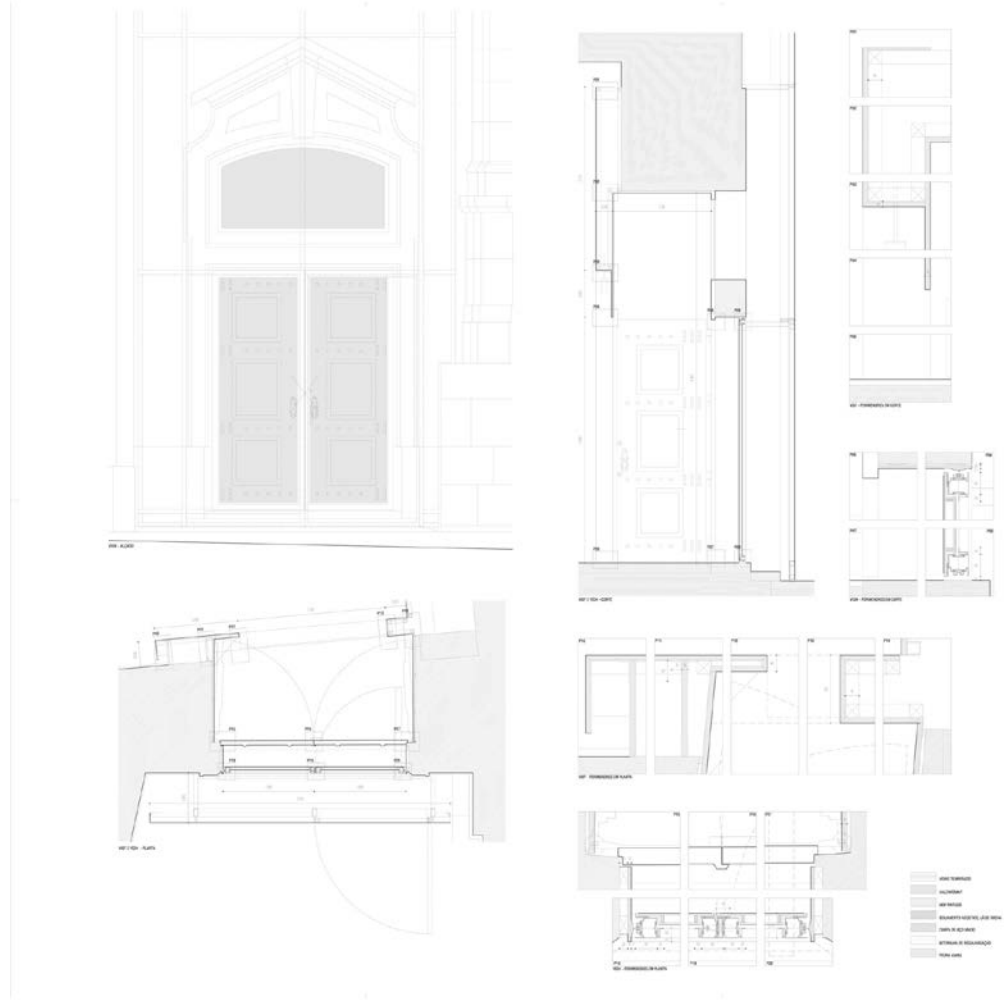


Fig. 3.25 (left):
Photo of the interior of Museum.

Fig. 3.26 (right):
Construction detail of the opening at the entrance of the museum.

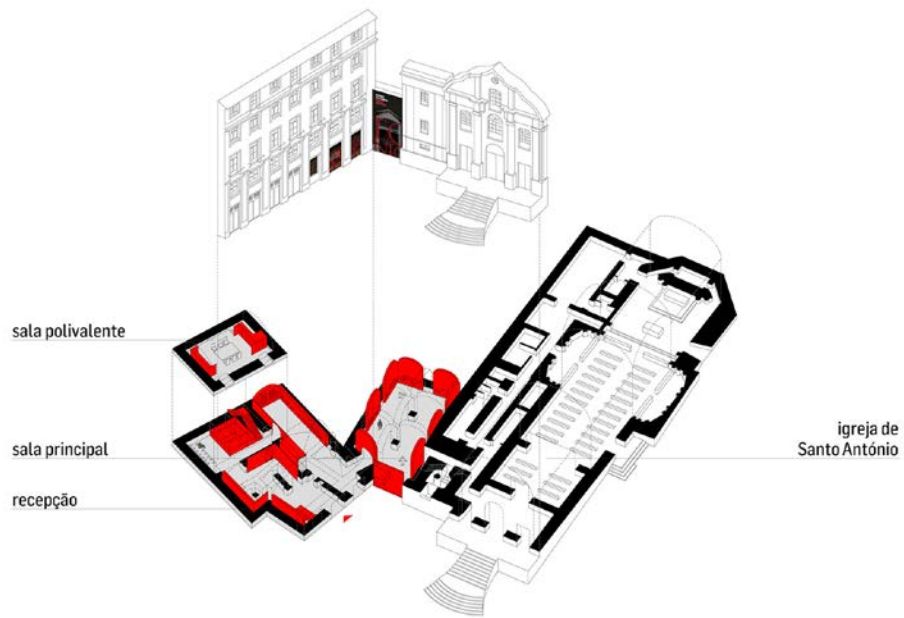


Fig.3.27 (left):
Axonometric plan with the project, the church and exterior facade.

Fig.3.28 (right):
Interior view of the project, showing the design integrating with the existing building.

CHAPTER 4 :

THEORY AND STRATEGIES BEHIND THE PROJECT

Finished with the background, history and case studies, It was time to start to design. But any kind of design lack of strength if it does not have a theory behind that support their porpoise. On this chapter it will be highlight all the theory and strategies that were taken into account in order to defined the idea of the project and to sustain it.

4.1 THE EMOTIONS IN ARCHITECTURE

“In architecture, the demand was no longer for box-like forms, but for buildings that have something to say to the human emotions.”

Kenzo Tange

What can we say about the emotions in architecture. The Spanish architect Jesus M. Aparicio Guisado on his book “El muro” (the wall), explains that the emotion as a concept is really abstract but it is something that architecture can express in ways that any other art cannot. And from this emotions the only thing that we know are just some causes and some effects. A masterpiece in architecture can make us cry or shock us. In this case the cause would be the architecture while the effect are the tears, or the silence produce by the shock. And so the question may be, What happen to a person from the moment that inhabit the architecture till the moment that the architecture bring up tears from him? In which way architecture accomplish this? The architectural emotion is an emotion on the space and time. The architecture is an emotion that can be inhabit.

Ilse Crawford is an interior designer who considers the emotions as an essential aspect of the design process. She is very famous for the concept of wellbeing, that refers to a state of health, happiness and comfort. She said, all the projects start with a strategy, prioritizing people, and putting the human experiences at the beginning of the design process.

Everything starts by asking us, How do we experience this room?, How do we feel about it?, What is the character?, What about the materials?. Give an answer to all these questions can lead us to a good design. We need to be able to create a place that affects people through the five senses, so the space can have an important impact in the way people feel, reaching to the emotions.

The materials are unique in every project, even if it is a material that has been used many times or even in similar ways, in every project will have a particular effect. The language of the materials is something that we could use to trigger these emotions, in terms of how they are laid, or how they are finished. And it is usually something that we go into great detail, since humans are naturally drawn by materials. But how do materials talk to us? Well, sometimes are the things that give us memories. This can happen for instance when a material comes into contact with the light, and produces a particular impact, but also when they get into contact with other materials.

A bench for example, within a space invites us to stop and appreciate the space in another perspective that when we are walking the space.

We cannot forget that emotions happen also because the space itself contains a specific atmosphere. Because the space is a complex and rich in history and details, that the project should be able to simplify.

The scale is another trigger of emotions, the change of it can allow us to experience a room in a unique way.

During the development of this project I have tried to look for these triggers to produce an architecture that leaves an impact on people, gives them unique experiences and emotions. Further on when we talked more about the project we will see this through the design.

4.2 ANALYSIS

The idea for the adaptation of the building must have a base on the form of the original building since we cannot change much in order to preserve the history, but also because without a proper understanding of the area of study is impossible to create something coherent.

According to the book *Re-readings*, written by Graeme Brooker & Sally Stone, we can place the analysis of this kind of buildings into 4 big categories in a way to classify them, into different approaches to discuss particular aspects. Either can be “**Form and Structure**”: easiest way to understand an existence building, whether it has a distinctive rhythm or order and what is the relationship between the rooms and spaces. In this project this type of analysis is important since allow us to understand the design decisions since every concept of design takes into account the relationship between rooms and spaces to develop a path through them, in a way a storytelling, that gives value and meaning to the different functions.

It can be “**Historical and functional**”, and on this matter we consider the history of the site or building, specially the previews uses of the building and what happen to it to create and outcome for the design. This clearly happened on this project since we will see further in the book that certain decisions came as a result of the study of the history of the palace, like reopen old entrances. There is another analysis that consider “**The Context and Enviroment**”, of the existence building and establishes a relationship between the site, the neighbors and sometimes further aspects that may influence. Considering that we are focus mainly on the interior of the ground floor and only a small part of the outside this kind of analysis does not really help to this kind of project. Finally there is the analysis of “**The Proposed Function**”, when we can tray to understand whether a relationship with the original building can be established.

The first thing we need to understand is that we need to being able to read a place to provide the principles or basis to find the solution for any kind of intervention. This understanding will generate strategies and tactics that will lead to the redesign. Rodolfo Machado describes it like this:

“Remodeling is a process of providing a balance between the past and the future. In the process of remodeling the past takes on a greater significance because it, itself, is the material to be altered and reshaped. The past provides the already written, the maked canvas on which each successive remodeling will find its own place. Thus the past becomes a package of sense, of built up meaning to be accepted (maintained), transformed or suppressed (refused).”

To reach to a successful project it is necessary to understand the original building and being able to combine it with a good design. As we mention already the context, history, structure, spaces and functions can offer many significant data in the moment of design, giving inspirations for a proper solution.

The analysis can go from something really simple as the orientation of the buildings, so that the sunlight can use as an element of design or to highlight a particular area, as can be an entrance for instance. Or can be something more complex like revealing the passes of history to go more in depth and have a more clear idea at the moment to apply any particular strategy.

In this project for instance it is been mention already during the history analysis how complex it has been the evolution of the palace taking under consideration that it is been for more than 700 years. The palace that we know today is the result of many transformations, restorations, additions and removals. So in a way we could say that what we can see today contains the stratifications of time, and being aware of this is going to be a key concept for the project.

The memory of the history can be written in the walls, the original function may have change through time, there many aspects really valuable when make ourself aware of the history. A building like this palace occupy and specific place and has it own identity, with a unique relationship with the surroundings, involving not just its immediate neighbors but also thing more distant. The scale can also play an important role, like in our case and like its been mention before the palace is consider a city inside a city, considering the size in comparison with the rest of the city. Nevertheless the scale of our intervention occupy only a small fraction of this city inside a city, so we will see on the proposal how I have to manage to reach a detail scale to justify every choice made during the process of design, but at the same time it allowed me to focus more in a proper solution.

The successful marriage of old and new, of past and future is highly condition by the knowledge or anticipation of what to expect with this design idea, that in the end is influence by the proposed function.

Buildings can change over time; they can evolve, grow or be reduce. Their function can be alter, the narrative of change is sometimes hidden and sometimes is really present and alive. If we stop for a moment and rethink about what it has been mention already, the area of the project occupies what we know as Palazzo del Capitano (Capitan's Palace), and in the beginning was the main building, left eventually through time, as a product of the evolution and enlargement of the Palace, till the moment of the Austrians when It got importance once more as a main buildings since it was strategically located in front of Piazza Sordello (Sordello square). Now again has an important role and main reason of our intervention. Now a days Palazzo del Capitano holds the entrance of the Museum, which needs to be improve to enhance the visit of the people. And there is not doubt that the previous function of the building will have an enormous influence upon the redesign.

But what else can we take from time, because there is not just history to take into account. The weather also leave marks on a building. The sun the wind , the rain all contribute to the staining, the erosion, and other aspects. Some times the corrosion through time by the weather result can be seen as something that can improve the place even can be seen as something romantic. Nevertheless is not our case because since the museum open their doors the entrance have always occupied this area, so time has been stop through out constants renovations and maintenance. That does not means that inside we cannot still appreciate the traces of time, still presence for instance on the frescoes in the walls. This visible presence of the past is a valuable tool in the transformation of a buildings and rather than acting as a constraining factor, it can act as an instrument.

What has been clear for the beginning though is that a careful intervention should be done in order to facilitate the new functions. The nature of the proposed use is not always the starting point but it has always an enormous impact on remodeling. As a part of a analytical process, the programmatic requirements of the new function need to be examined to ensure compatibility between the old and new. It is not a questions of sizes but more a question of harmony. Some functions may require small individual rooms and others large open spaces, and the intimate hierarchy of those who are to occupy the spaces needs to be appreciated.

This project is specific dictated by the functions, so it is really important to take under consideration how much space we need to every function taking a dimension as an important parameter.

4.3 STRATEGIES

Moving on from the analysis, thinking about strategies is the next step. As a mayor group classification the book re-readings classify the strategies inside 3 main categories according to the relationship between the old and new. If the building would be modify to the point that it cannot be undone, when the old and new are intertwined, then is an “**Intervention**”. If a new autonomous element where the dimensions are dictated by those of the existed ones, in the sense that it is built to fit, confined itself within the existence structure, then is an “**Insertion**”. the final classification, which refers at examples in which the old and new exist independently and where the new elements are placed within the boundaries of the building is called “**installation**”. For this last classification just because it does not involve attached elements, it does not mean that the design elements are not influenced by the exiting. Even though the fit is not exact, if we would need to removed them, the building will return to its original state.

On this thesis I have design different kinds of concepts that adapts to this classification, and there are examples of interventions, insertions and installations. In regards of this topic it can be mentioned that when it comes to interventions due to the nature of the program of the project some removals needed to be done in order to accomplish the objective of this design process. As an example of these situations and as we would see later on the project I had to proposed the idea of removing windows, opening some walls, and these changes are going to stayed they cannot be undone, yet every decision has a meaning and a proper reason to sustain the idea. In the matter of insertions, during the project I decided to add some elements that will guide the visitor through the museum, like a frame inside an exiting opening. At last but not least every room that takes part of the project has change or improve the actual condition, so saying this I needed to design a series of installations or furniture.

When we design consciously or not, we are employing strategies. These are usually the basis of the theoretical issues that driven the design of the building. The strategies can manifest itself in many different ways, whether it is the controlling grid and ultimate freedom or the spatial qualities. These strategic moves are of course supplemented by a complex combination of different factors, such as a site conditions, structural system, programmatic requirements, the era in which the building was constructed or the pursuit of the individual own idea. The combination of all these, allow the building to arrive to a rich complexity driven by an often simple strategy.

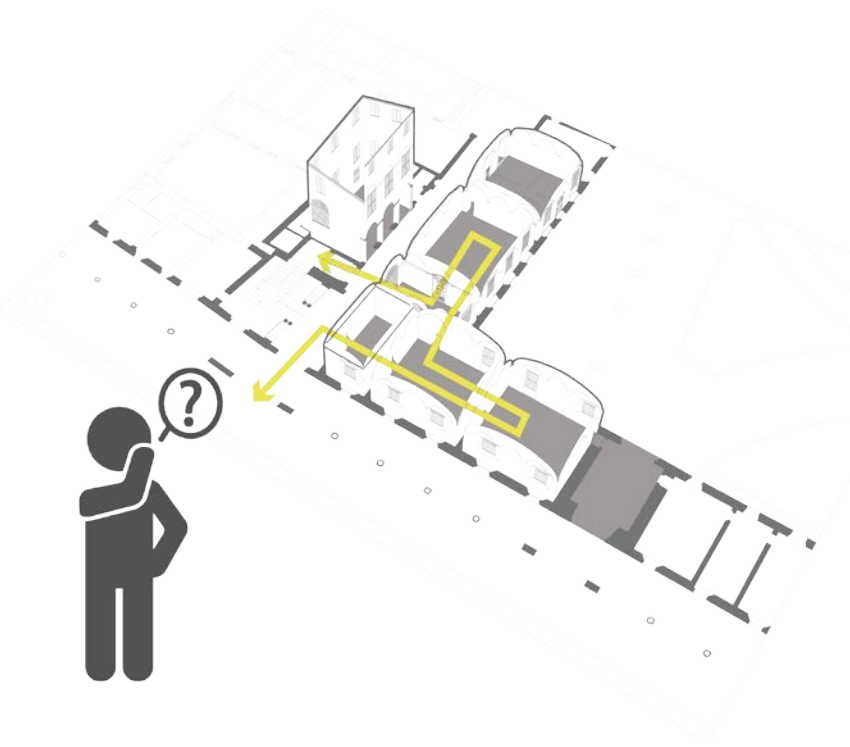


Fig. 4.1:
Diagram showing the circulation of the entrance now a days to the museum,
by Federico Gancedo,
2017.

4.3.1 INTERVENTIONS

And intervention is a process that bring a positive or negative change for the building. It only works when the architectural response of the modifications draw all their ideas from the existing building. It necessary to understand the building as a narrative, a story to be discovered and retold and, through the process of uncovering, clarification and interpretation will be visible.

By reading the place we can find the clues to take the proper decisions. The modifications of a building can interact intrusively, with new elements imposing themselves directly upon the existing structure. This is clearly applied on the new entrance proposed in this project. This new elements usually are small changes, alterations, or like in our case subtraction and addition, always keeping a close connection to the original building because they are inspires by it, even when the language is usually (and also in our case), odd with the host although the character is balanced.

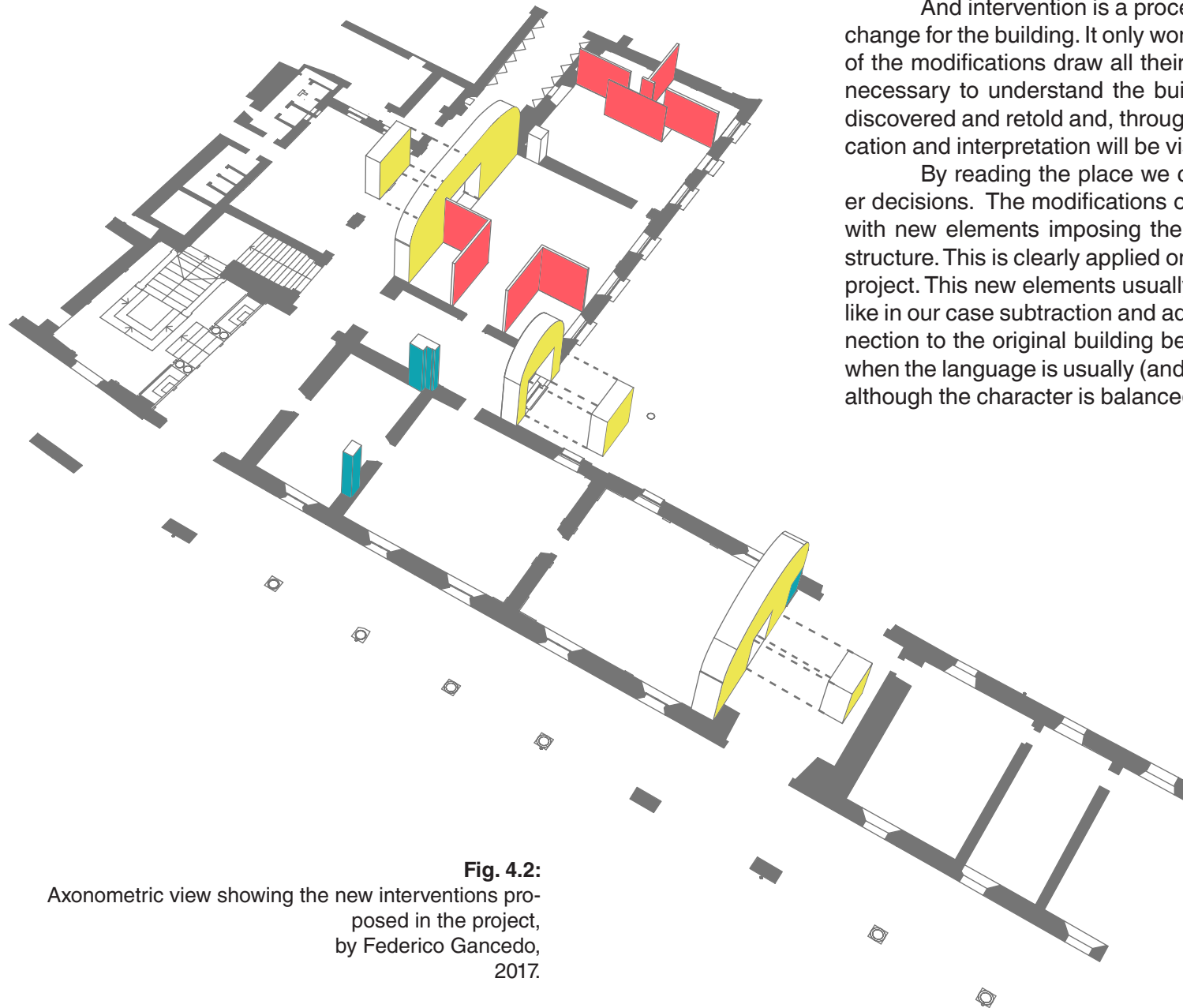


Fig. 4.2:
Axonometric view showing the new interventions proposed in the project, by Federico Gancedo, 2017.

4.3.2 INSERTION

Insertion is a practice that establishes an intense relationship between the original buildings and the project, and yet allows the character of each to exist in a strong and independent way.

The dictionary define it as the action of inserting something , in this case between an existing structure. Often this element can be seen as independent and confrontational, a single large powerful element that establishes surprising dialogues between itself and the existing volume that contains it. It is at best when there is a clear distinction between the new and the old marked by the difference of style, language, materials and character.

Although the new element is independent, particular aspects derives from the original building. This is inevitable because the insertion always has a direct architectural relationship with the absolute physical properties of the existing space. It is in fact as mention before built to fit. Factors like scale, dimensions, proportions, rhythm of the existence building influence the design of the insertion. At times the insertion can be seen as an reinterpretation of the past, with a contemporary approach. In this case the idea of use the element of metal as a frame from the doors in between spaces, but also for the entrance and exit, look forward to establish a language that can be repeated and read as on thing, as a whole, and not as isolated interventions. It need to be mention that an important aspect of this solution is that the host needs to be able to support the new element.

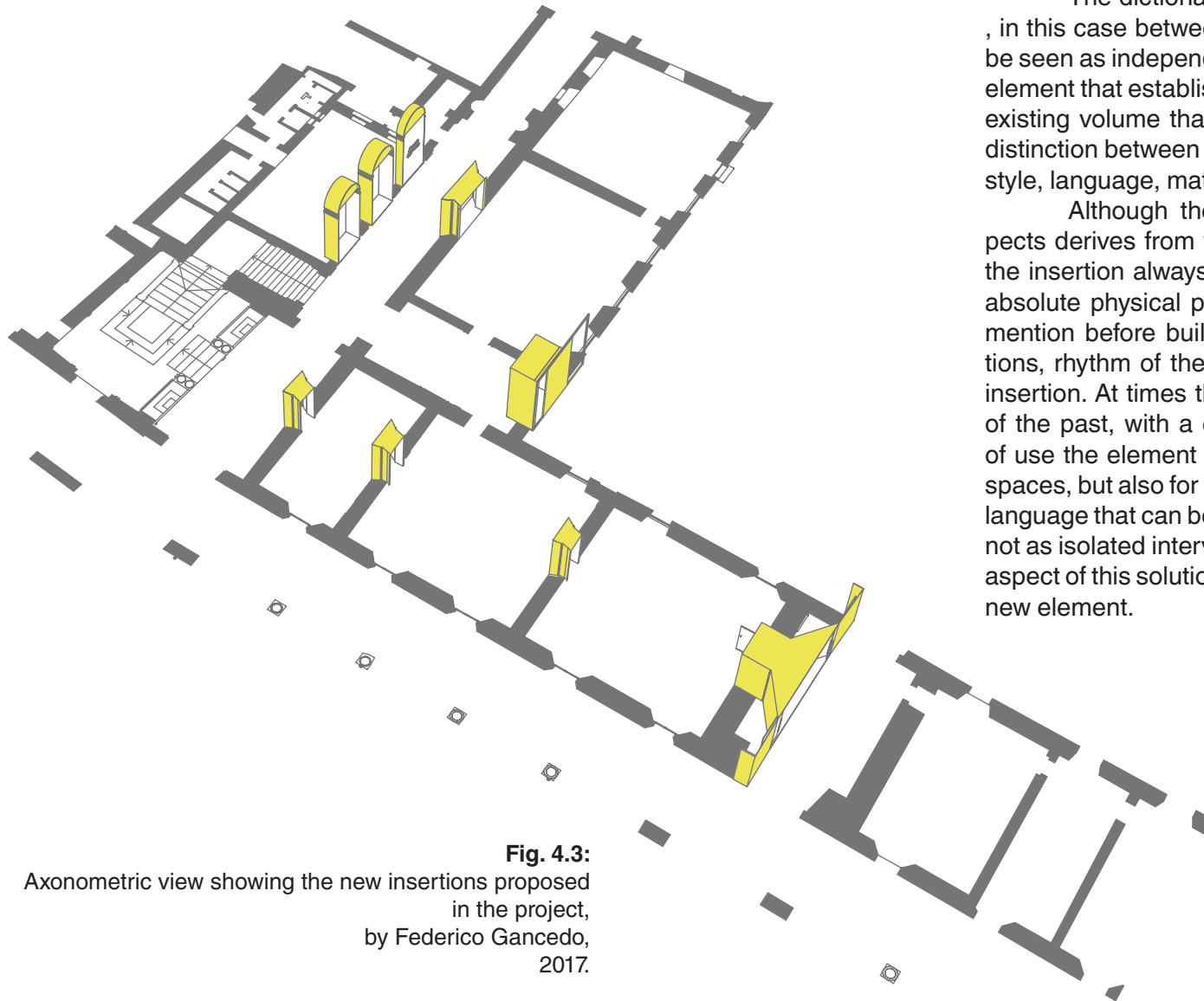


Fig. 4.3:
Axonometric view showing the new insertions proposed
in the project,
by Federico Gancedo,
2017.

4.3.3 INSTALLATION

When it was mentioned the main groups for strategies, It was established that were 3. The last one is installation. It can be defined as a series of elements related within a context of an existing building. This is a process that recognize the surroundings, since there is an awareness of the existing building and together combine without compromising each other.

Usually the character of the objects or elements that occupied the space is dictated by the style or the passion of the architect whose been commissioned with the project. These objects are limited in size due the fact that they have to adapt to an existing space. In our case would be the furniture or services design inside the spaces. As an example of this project we It can be mentioned, the space that has been called the locker-media room. An space defined by this object that behave like a box inside a box.

These objects can be used to organize and delineate the space, in our case help to the transition between rooms an give the meaning to the function. the reason for theses objects to be can be given by different reasons, like history, context or function.



Fig. 4.4:
Axonometric view showing the new installations proposed in the project, by Federico Gancedo, 2017.

4.4 TACTICS

Even when details usually are the last thing to considered during the design process, they are just as important as the rest of the strategies, for the realization of the project. Since this thesis has a character more to an interior design details plays an important role that help not just to give character to the space but also to defined other aspects, like how the new interventions adapt to the existing building.

The tactics employed in the remodeling of a building can be seen as manipulation of the elements or details in support the overall strategy. These elements are an expression of the use and of the character of a building. These elements are the ones that make a difference between spaces. In our case with out these elements all the spaces that we are designing would be empty spaces, without any specific use. But they also define the quality and provide features. So a building can be understood through the details.

An object placed in certain way can manipulate space, movement and visual direction. A number of objects place in a series can be loaded with significance and meaning. But also if this element is a furniture can enhance the space it occupies.

4.4.1 PLANE

A plane can make a reference to a vertical or horizontal element that can be found both in the inside or the outside of a building, and is probably the most obvious and easy recognizable detailed element in a building that has been intervene. Whether is temporary or permanent this elements provide visual, acoustic, and environmental protection. A wall can be more than just a pure vertical surface; for example, it can contain storage, bookcase and other possibilities. In our case this situation can be appreciated, in the inside courtyard, one of the areas of intervene.

The program required an elevator to go from the ground floor to the last floor in a way that allows to connect with the “Armeria” (the last floor of Palazzo del Capitano), since the museum prevent a future intervention there to make it an exhibition space. This elevator as an structure itself seems just like a practical solution and not a design solution, that in my opinion leads to a bad architecture resolution. So I came with the idea of integrate this elevator to another function. In the courtyard I decided to place to a gift shop. Since the place was going to be close, by a glass roof i though in a way to mask this elevator structure with a wall. The final solution is this vertical garden that covers the wall that contained the structure of the elevator, bringing up the idea of a vertical garden, giving a unique and particular character to the space, and along with the light coming from the glass roof enhance the quality of this small space.

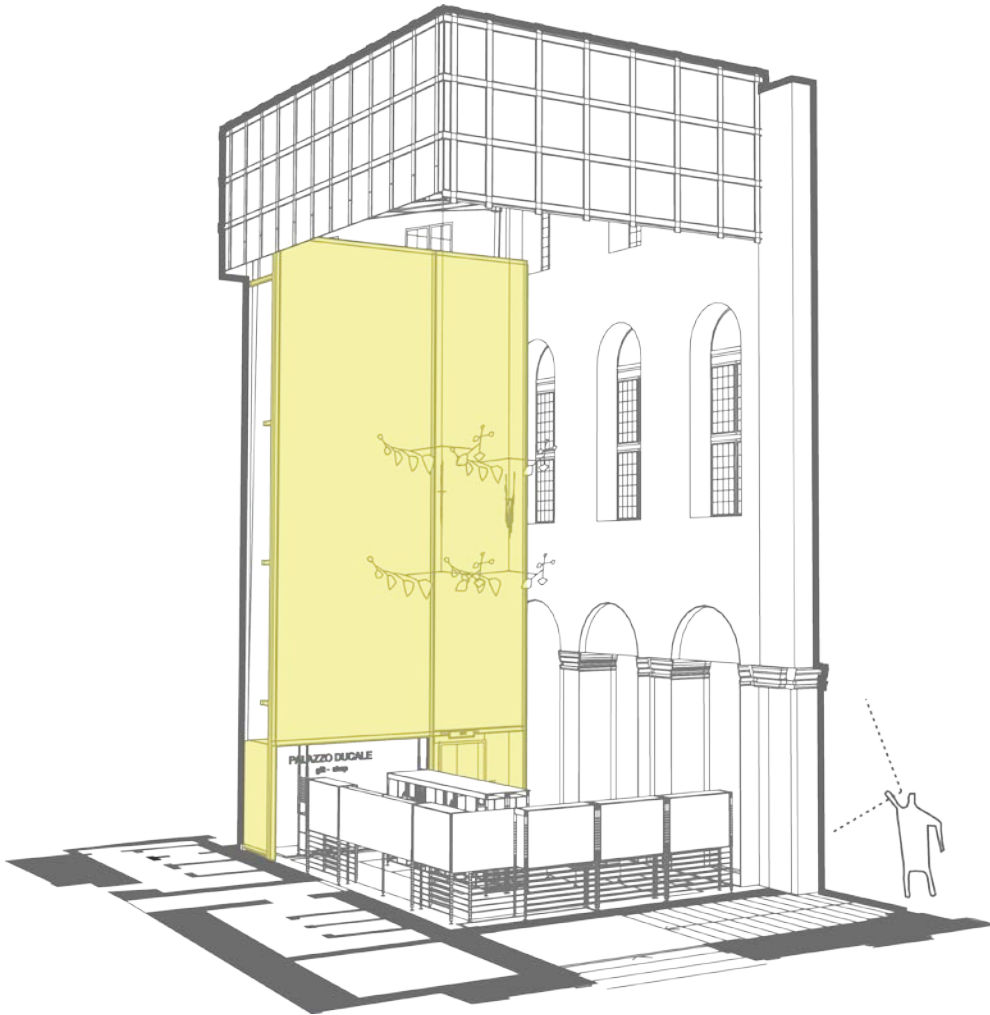


Fig.4.5:

Axonometric Sketch of the courtyard area, highlight in yellow is the example of the strategy of the plane applies in the project, by Federico Gancedo, 2017

4.4.2 OBJECT

A purposefully placed object is loaded with meaning; whether it is a small piece of furniture, a large sculpture or a number of pieces placed together, it establishes a physical and cultural relationship with its environment. But it can also influence the way in which the space is view, it can make to look at certain place or make you look somewhere else. The furniture is an element that denote human scale and use. It can be barely appreciated or have beautiful sculpture qualities. These elements as it was mentioned is of a definite scale; said this, it is design to fit or adapt to human scale. Too small or too huge the pieces become sculptural and they loose they propose. The grouping of furniture can produce an specific response, like a unique character and language.

The manner in which they are arranged can suggest definite activities such as eating or something else. The meaning comes from the precise position with a defined place.

In our case just to mention some examples, on the first room is located the model of the Ducal Palace, along with digital screens that explain the history and development of the building. If we think about the model as an object of attraction you can realize that the clear path propose between rooms of the entrance, the beginning of the path's museum and the exit is always interrupted by objects like this which stop the visitor for a moment , allowing them to understand the space, appreciate it or make use of this object and then continue with the path.

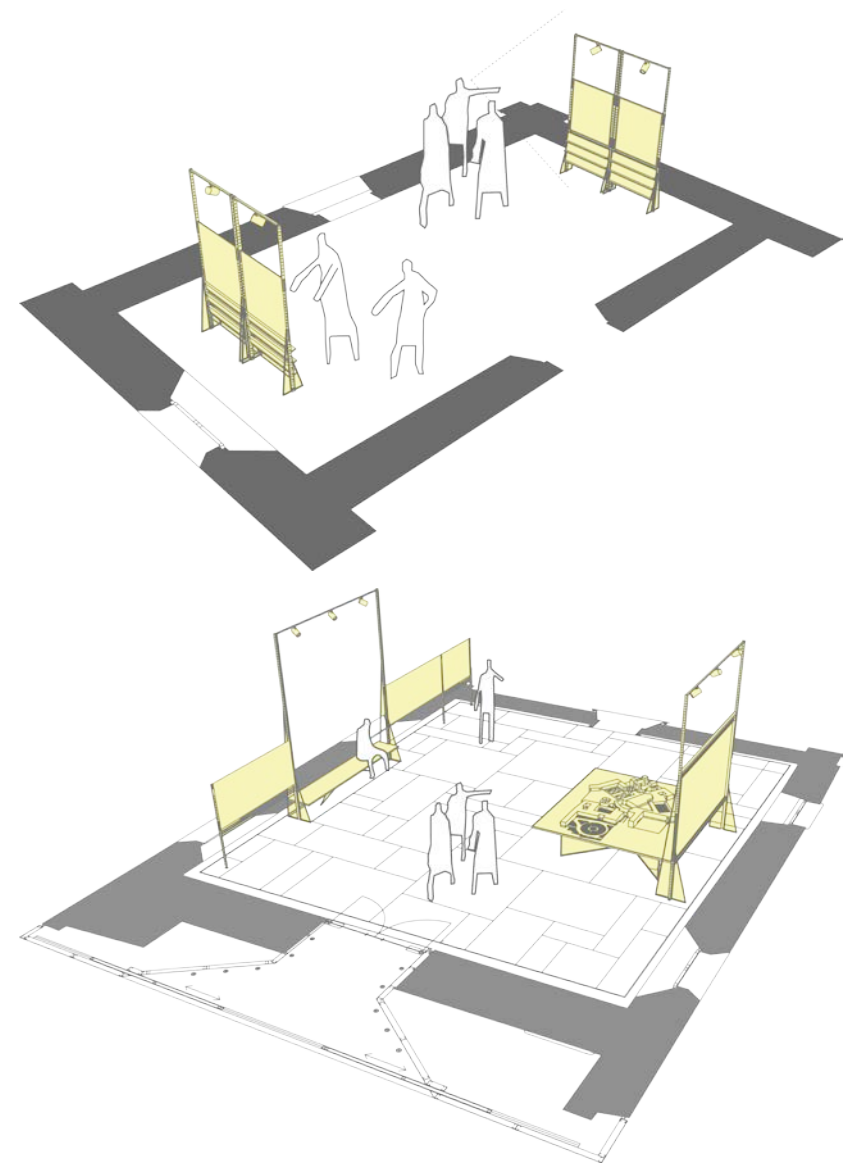
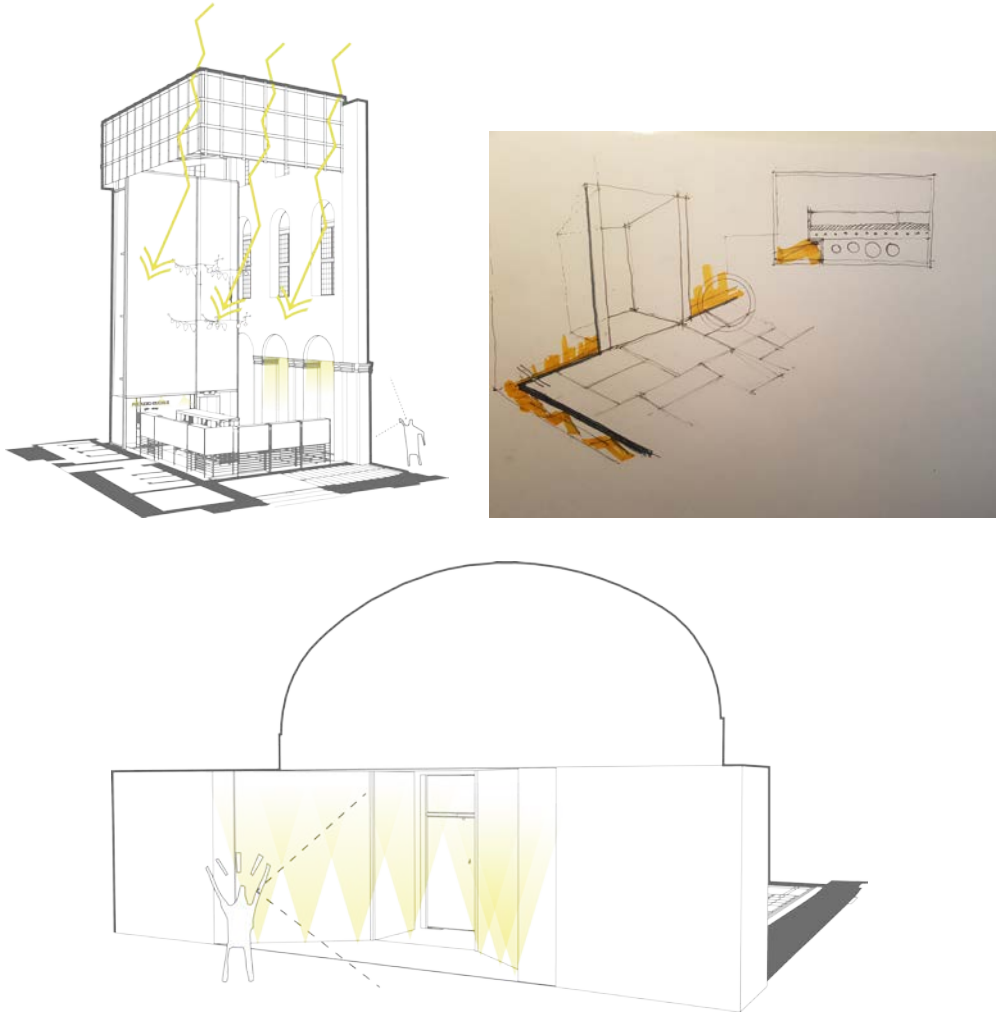


Fig.4.6:
Axonometric Sketch of the courtyard area, highlight in yellow is the example of the strategy of the object applies in the project, by Federico Gancedo, 2017

4.4.3 LIGHT



Light is probably the most important element necessary for the understanding of space and form. A space with no light is hard to appreciate and visualize. Whether natural or artificial, the light indicates the space and defines a form. It is important to know how to control the amount of light, too much can be as good or bad as if it is subtle.

Natural light can be manipulated to illuminate specific places and channeled through quite large distances to create an effect, while the artificial light is easier to adapt and manipulate, the effects produced for the natural light have a unique essence.

A brightly lit space beyond that which is occupied can indicate the continuation of rooms, but also like in this project we will see it is placed hidden under the borders of the room to create a particular effect but also a kind of invisible limit between the historical walls and the project.

The quality of the light can change through the length of the space, it can indicate moments, it can accentuate changing narratives. At the entrance we find this element, a sort of a tube that leads us from the outside to the inside, narrowing the space to finally enter to the first room. On this object, in part inserted at the existing wall, there have been placed lights on the floor as a sort of guide to the people to the inside.

Fig.4.7:
Axonometric Sketches of the example of the strategy of the light and how it applies in the project,
by Federico Gancedo,
2017

4.4.4 SURFACE

It is the surface of an element that receives the most contact. Doors can look strong but is the handle that we actually touch.

The specific choice of materials and textures can create identity and meaning. The character of a wall depends as much its textual quality as its structure or position. A concrete rough finishing is quite different from polished marble, but even then they can be placed in an identical position.

The manner we use the materials creates unique atmospheres and moods. Many architects may use similar materials, but it is the application or detailing that gives each building its individual quality. The identity is created by the way the materials are arranged together. For a minimalistic work for instance, the detailing has to be precise and well-crafted. Every little detail makes the difference.

Finally it can be mentioned that the properties of a material often determine its use. This is the case for the conventional architectural materials; like wood creates warmth, steel is and appears strong, brick is traditional, concrete has modernist connotations and glass is transparent. Others like steel mesh plastics and acrylics, which were developed for industrial use originally, now are accepted as finishing. In the case of this project just a few materials have been chosen to create a connection, character and continuity. For the flooring the rough finishing marble brings back the idea of an old flooring with a more modern use in the way it is applied. In regards of the furnishing and doors steel has been chosen as the main material due to its resistance, durability, the possibility to shape it as it needs it and the contrast with the existing building to make it clear the difference between old and new.

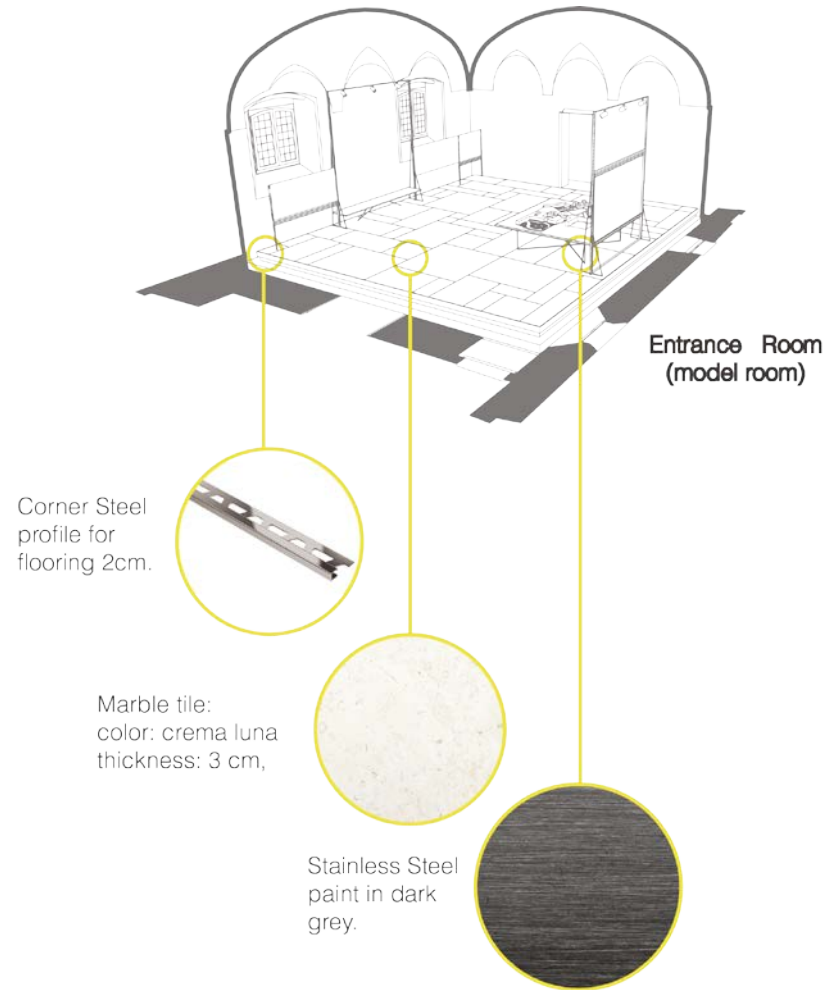


Fig.4.8:
Axonometric Sketches of the example of the strategy of the surface and how it applies in the project, by Federico Gancedo, 2017

4.4.5 OPENING

Openings are important in buildings. They can signal physical or visual movement, and provide an idea of where to go or remind of a previous encounter. They give us ideas about the context and can be very different. They can be ornamented so that the opening itself is accentuated or they can be simple frames for the passage. They also help with the circulation and allow views further into the journey.

As an axis through the building is a valuable controlling device. A door is more than just an opening in the wall. It is an important sign that indicates the transition and prepares the visitor for what comes ahead. The main entrance door of a building marks the limit between the inside and the outside, from the public to the private. In the case of the doors the scale is not dictated by the human scale, either can be a refined delicate door or a big heavy one, and each of them will suggest different things. Some times can be used as an element that contrasts with the original building, to produce a unique feeling.

In the matter of windows, it can be mentioned that the most basic function is to bring light inside, but they also allow a view from the inside to the outside during the day and project an image of the interior to the outside at night.

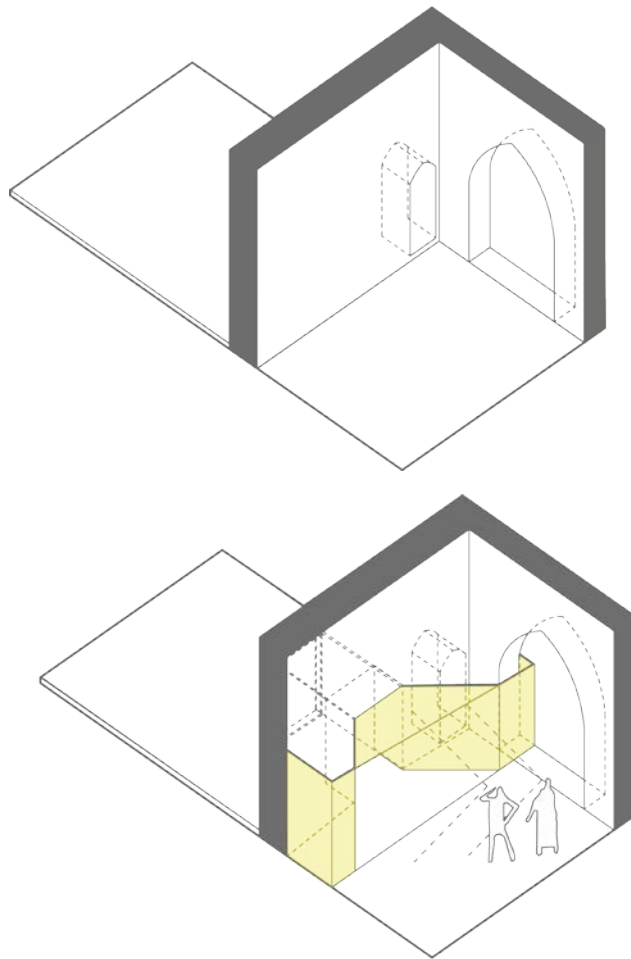


Fig.4.9:
Axonometric Sketches of the example of the strategy of the opening
and how it applies in the project,
by Federico Gancedo,
2017

4.4.6 MOVEMENT

The movement or circulation in a building occurs in a numbers of ways. It may be by means of something simple like a corridor that link a number of rooms, but it also have a meaning of something more complex, like a series of dynamic spaces composed by stairs, ramps and bridges.

The route through a building can be signaled by the use of direct light and specifically placed objects.

IT was not until the beginning of the 17th century that houses started to have corridors. Doors were position in the center of the room as an enfilade. This is clearly seen on our project on the areas to intervene. Rooms often did not have the single focused occupation, but rather were often used for a multitude of task and privacy was not the pre-occupation that is today.

Le Corbusier for instance used circulation to develop a dynamic counterpoint to the static geometry of the building, as an element that contrasted with the other spaces. His early buildings were designed as a sequence of experiences, the perception of which occurred while the viewer was in motion. The Villa Savoye is a perfect example of this. Our project different from the Villa does not base the experiences moving on a ramp but it propose the idea of discovering. Every room contains a particular function that will encourage the visitor to move through it. An example applied to this particular project can be found on the main staircase that leads from the ground floor to the main path of the museum. Nowadays this stair just serve as a vertical element that connect levels. But with this project there is an addition. These stairs surround the courtyard that has been close with the glass roof, so one of the inventive of this project is to propose an art installation suspend it on this close space on the way up to the stair we will be able to appreciate this work of art from diferents perspectives adding a unique character to a simple element as can be an stair.

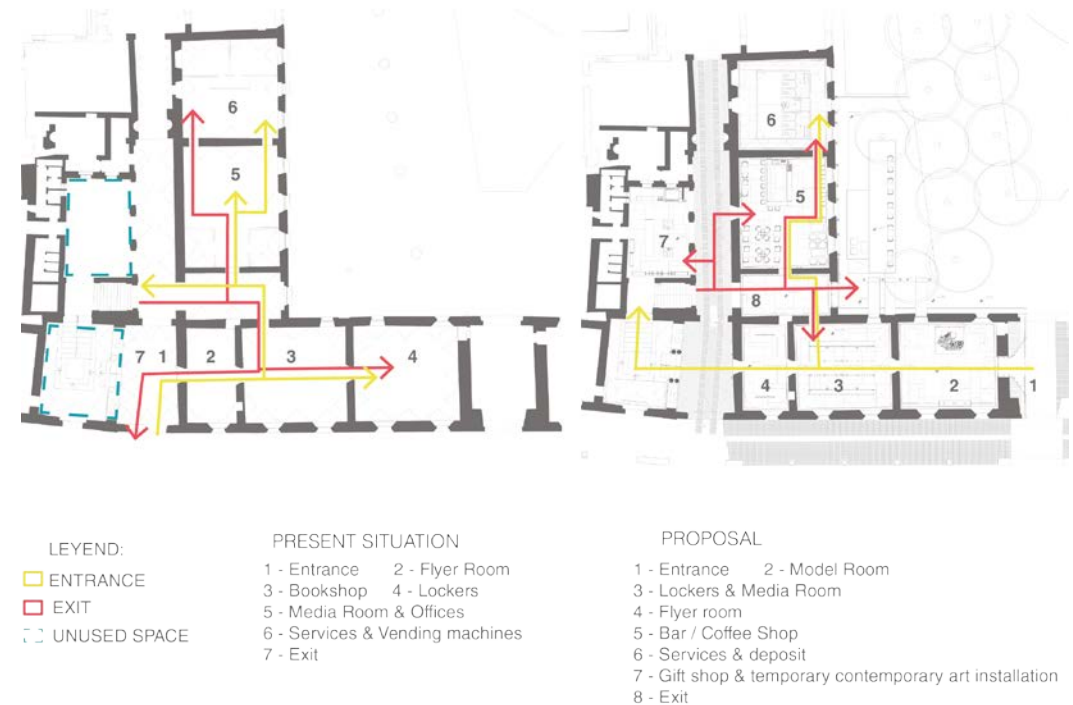


Fig.4.10:
Axonometric Sketches of the example of the strategy of the movement and how it applies in the project, by Federico Gancedo, 2017

CHAPTER 5 : PROJECT

It is wrong to think and say that all the chapters before this one were concluded in order to start with the project. The design in architecture is more complex than that. It's a continuous evolution than even after the project starts on the construction site, things change and even after it's finished things eventually will have to change and evolve, not everything persists over time, not everything becomes a monument as we mention in the previous chapters. Nevertheless, it was thanks to the analysis of the previous steps that I was able to arrive at the final design. On this final chapter, I present the final project and explain the different parts of the intervention.

5.1 PROGRAM

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The aim of the project is to improve the actual situation of the entrance for the Palace to enhance the visitor experience. To redesign the actual situation, it was required to:

- Change the actual entrance, from the actual position to the passage that connects “Piazza Sordello” and “Piazza Palone”, under the building of “Palazzo del Capitano”.
- On the inside courtyard mentioned in the survey (chapter 2), it was suggested to locate the new bookshop, since it needed to be close with a glass roof to host an elevator that connects a new expansion of the museum in the “Armeria Room” over “Palazzo del Capitano”.
- Right now the Palace does not have a coffee place, so it was something to add to the existing services, which needed to be connected somehow to Piazza Palone and the exit.
- The actual bathrooms are not the best solution, so it was part of the program to change the existing ones.
- Finally, in regards of the exit, nowadays share the same space of the entrance and sometimes looks very confusing. So propose an exit was part of the program as well.

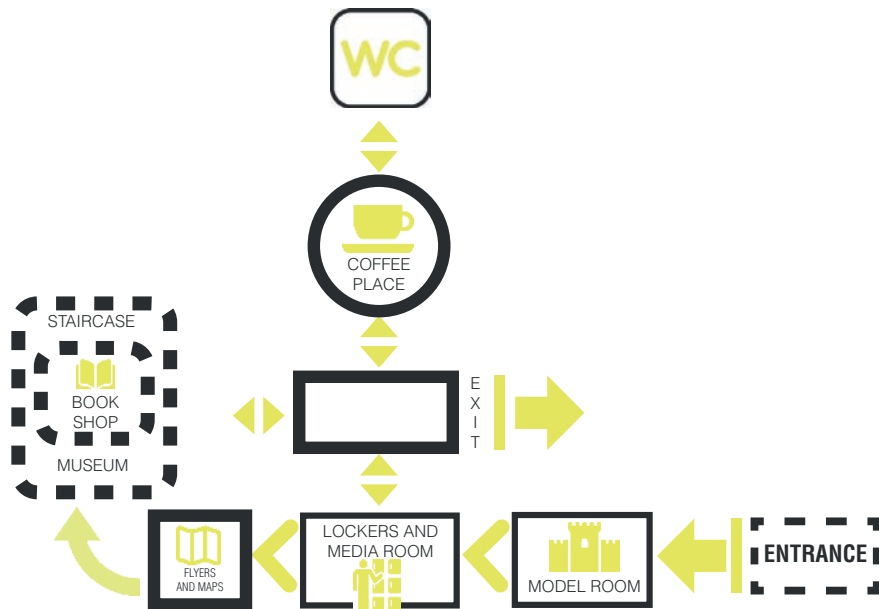
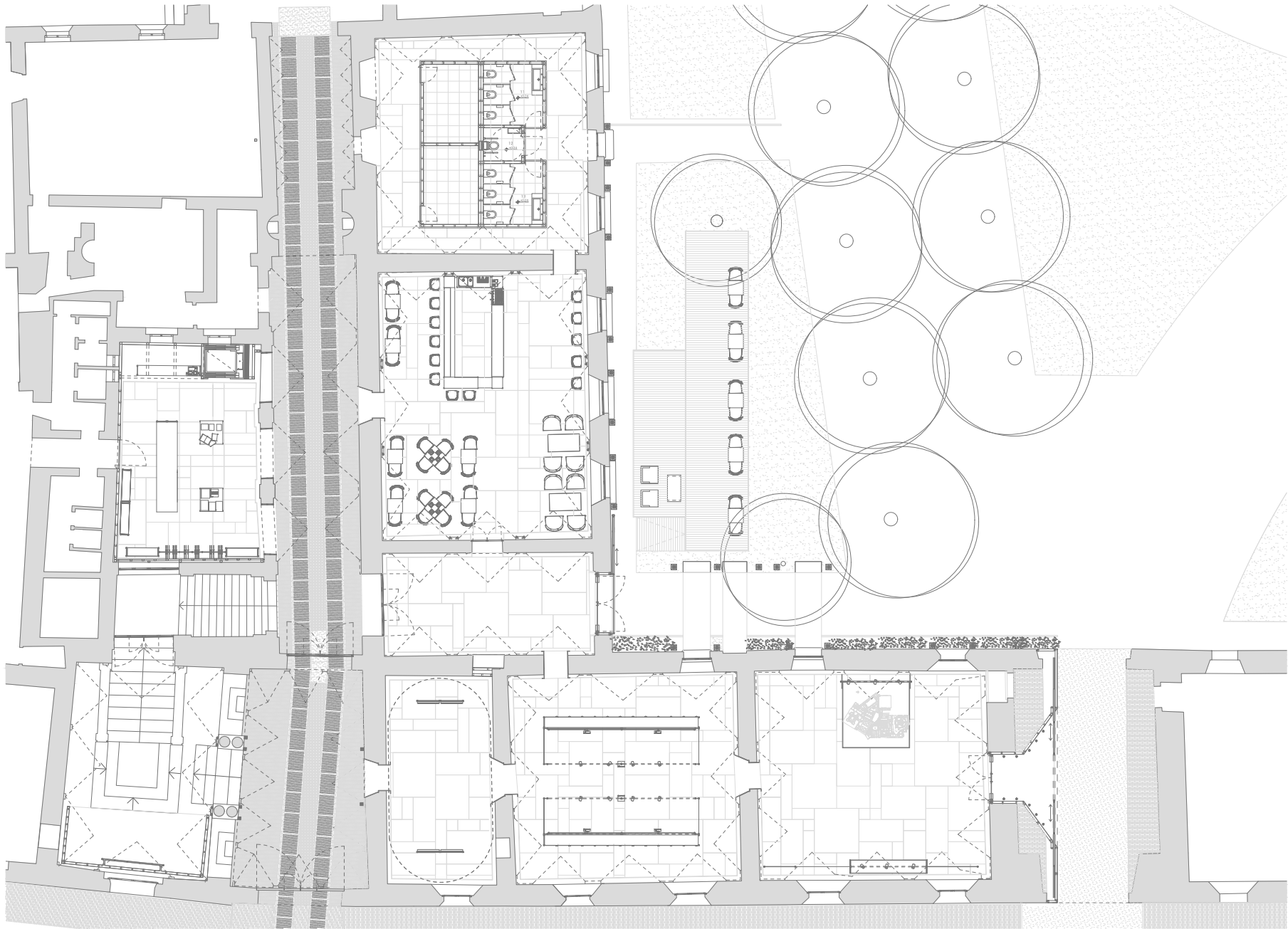


Fig.4.11 :
Diagram with the program proposal for the new entrance,
design by Federico Gancedo,
2017



5.2 PROPOSAL

So at last after all the analysis, research and information gathered, It was possible to propose a possible solution for the problematic presented on the program.

The first need to be mention is something already discuss and it is the entrance. The new entrance it is proposed to be moved from the actual position to a new opening on the tunnel that connect Piazza Sordello with Piazza Pallone. This new opening even when it will imply the idea to open through a wall of a historical building, It has been sustained basing on the knowledge that long time ago there used to be an entrance there, meaning that reopen a preexisting opening can be consider as a way to reconnect with the past, bringing back something that already was there.

Passing through the new opening, a kind of small tunnel, the visitor will find the first room of this tour, what I decided to call the model room. The model room as the name describe it will be a space for the tourist to familiarize with the general history of the palace and it evolution through time, the model propose and interactive animation accompanied by a series of light effects on the model that highlight the different stages of the construction of the building. Along with the model there will be a series of panels with digital touch screens to invite to the visitor not just to go through the room but actually stop admired the room and start to understand better the history before moving to the next room.

The second room It is denominated the Locker - media room. Every museum nowadays lockers, it is a reality that something visitors have thing that cannot bring into the museum so they need a space to leave temporary they belongings. This is the only room that contained all the wall with frescoes, while the people put their stuff away they can take a minute to admire the room. But this room it is also a media room. That it is because along with the structure of the lockers I proposed the idea of installed interactive projectors, specially for kids. The museum receive a lot of visits from school and this interactive system can be very useful.

Moving on we will find the flyer room, a function not so different than the one that has right now, though the furniture has chance and been organize in a clear way to accentuate the path of the visit.

Fig.4.12 :
PROJECT: Plan Ground floor,
design by Federico Gancedo,
2017

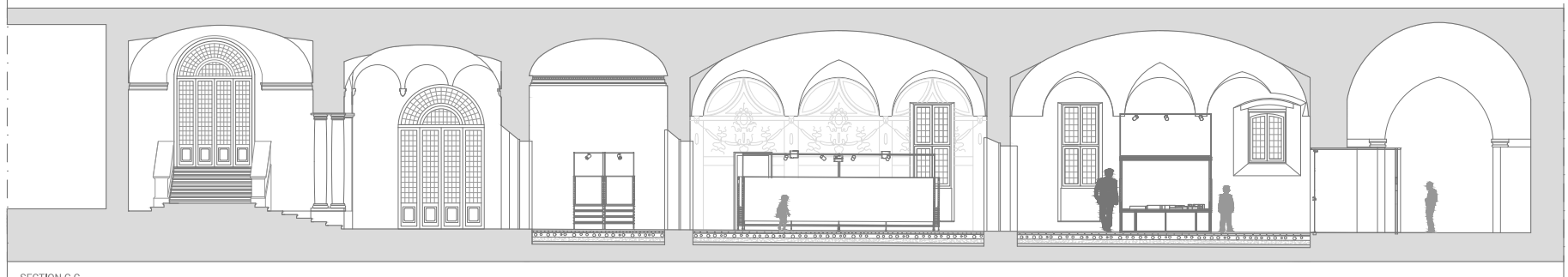
At the exit of the flyer's room the visitor experience the last step before enter to the museum. There is been set an installation that proposed the idea to placed there the famous painting of the battle of the Bonacolsi with the Gonzaga's, a perfect way to accentuate the beginning not just the museum visit, but also as a historical reference to the history of Mantua and the Gonzaga's legacy.

Taking the staircase to the museum path, the visitor will be able to admire the temporary art installations that will be held on the cover courtyard and on the way up to the stair I will be also possible to appreciate this piece of art from different angles.

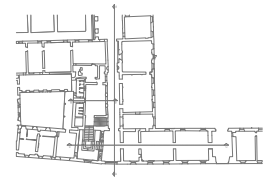
Finally after the visit on the way to the exit, the visitor will be able to stop at the gift shop in the cover courtyard or drink and eat something at the coffee bar.

As a conclusion I think is important to mention that the main aim of this project it is been to enhance the experiences of the visitors, organize in a more clear way the entrance and through the emotions create memories, to the people who visit the museum .

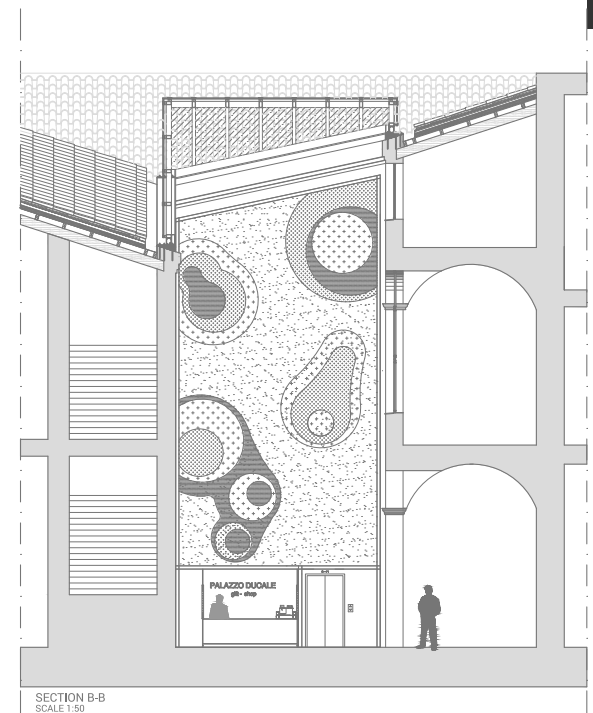
Fig.4.13 :
Sections of different areas of the project
design by Federico Gancedo,
2017



SECTION C-C
SCALE 1:50



SECTION A-A
SCALE 1:50



SECTION B-B
SCALE 1:50

CHAPTER 1 :
HISTORY

MANTUA

Mantua or Mantova is a city and comune in Lombardy region, Italy, and capital of the province of the same name.

In 2016, Mantua became Italian Capital of Culture. In 2017, Mantua will also be European Capital of Gastronomy, included in the Eastern Lombardy District together with the cities of Bergamo, Brescia, and Cremona.

In 2007 Mantua's centro storico (old town) and Sabbioneta were declared by UNESCO to be a World Heritage Site. Mantua's historic power and influence under the Gonzaga family has made it one of the main artistic, cultural, and especially musical hubs of Northern Italy and the country as a whole. Mantua is noted for its significant role in the history of opera; the city is also known for its architectural treasures and artifacts, elegant palaces, and the medieval and Renaissance cityscape.

Mantua is surrounded on three sides by artificial lakes, created during the 12th century, as the city's defense system. These lakes receive water from the Mincio River, a tributary of the Po River which descends from Lake Garda. The three lakes are called Lago Superiore, Lago di Mezzo, and Lago Inferiore ("Upper", "Middle" and "Lower" Lakes, respectively).

1

2

1

Map of the province of Mantua and highlight the Comune of Mantua.

2

Map of the city of Mantua and highlight the Ducal Palace.

GEOGRAPHICAL LOCATION OF THE PROJECT

1440

1540

1630

1859

HISTORICAL EVOLUTION OF THE PALACE

Fig.4.14 :
Board 1: HISTORY
design by Federico Gancedo,
2017

CHAPTER 2 : ANALYSIS OF THE PROJECT AREA

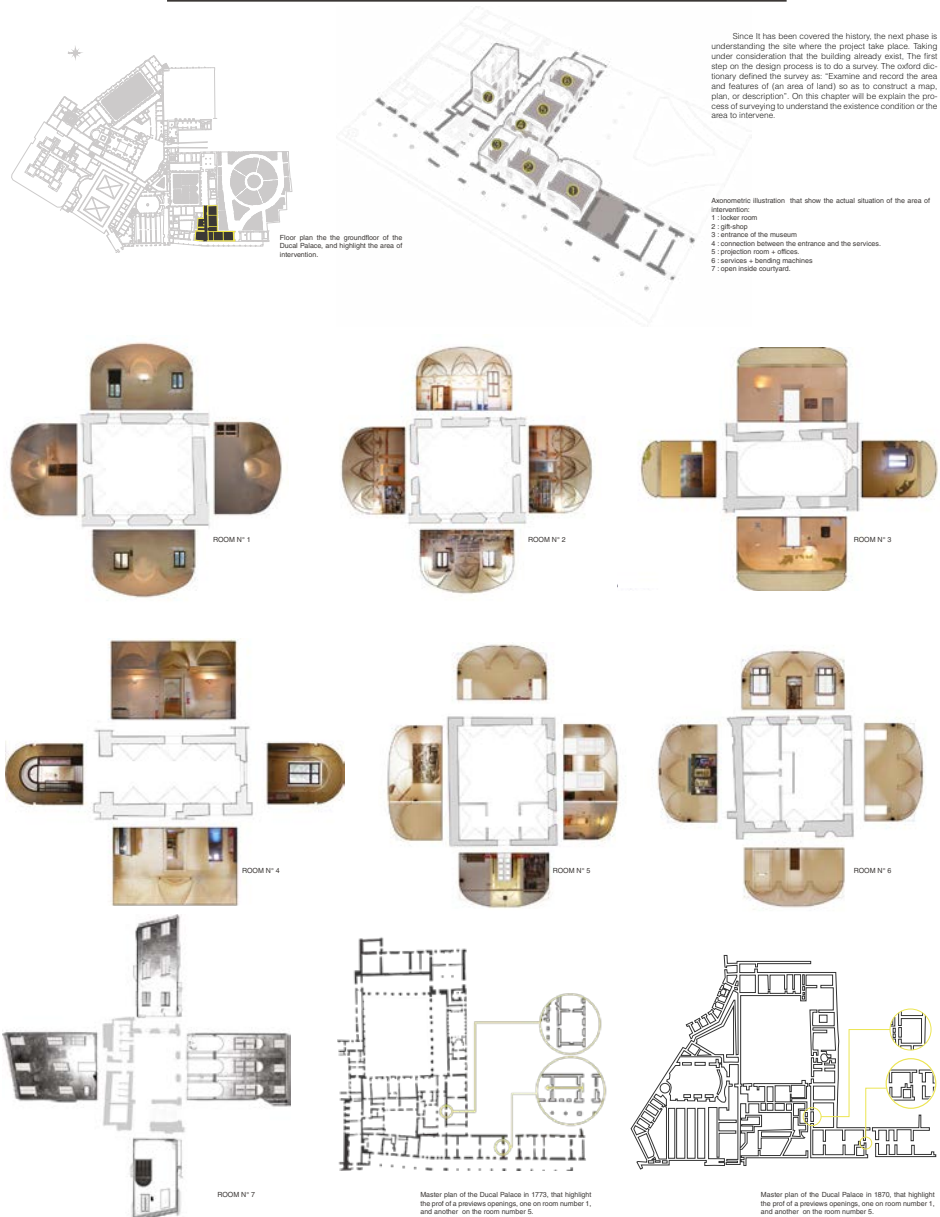
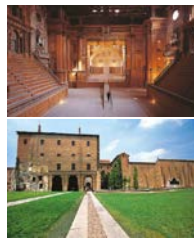


Fig.4.15 :
Board 2: ANALYSIS OF THE PROJECT AREA
design by Federico Gancedo,
2017

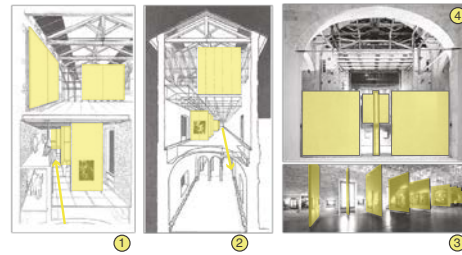
CHAPTER 3 : CASE STUDIES



CASE STUDY 1:

Project: Galleria Nazionale
Architect: Guido Canali
Location: Parma, Italy
Year: 1977-87

KEY WORDS:
INSERTION
INSTALLATION
MOVEMENT
PLANE
OBJECT



LEYEND:

On the left:
Above: photo of the entrance inside the museum.
Below: Photo of the exterior facade of the museum.

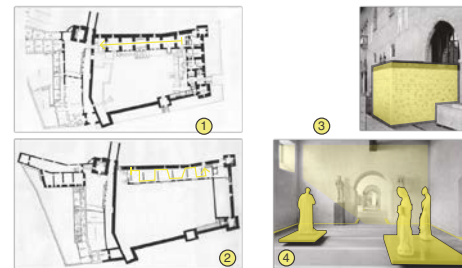
On the right:
1 & 2 - Vertical sections of the museum.
3 - Photo of the exhibition space.
4 - Exhibition panels at the end of the museum.



CASE STUDY 2:

Project: Galleria Nazionale
Architect: Guido Canali
Location: Parma, Italy
Year: 1977-87

KEY WORDS:
INTERVENTION
INSERTION
OBJECT
MOVEMENT
LIGHT
SURFACE



LEYEND:

On the left:
Above: A collage showing how Scarpa tried out the status of Cangrande in various different positions before settling on its eventual location.
Below: The facade of the east wing after remodeling, with the statue of the Cangrande finally positioned to the left.

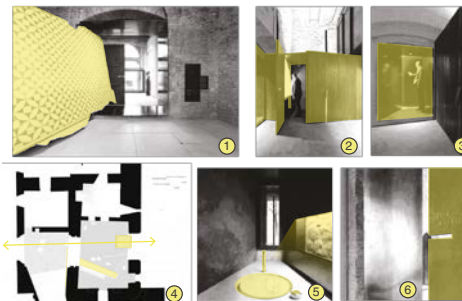
On the right:
1 & 2 - Plans of the ground-floor and 1st floor of the museum.
3 - Photo of The Scaellum's, showing the contrast with the exterior.
4 - Photo of The first set of rooms on the ground floor.



CASE STUDY 3:

Project: Galleria Nazionale
Architect: Guido Canali
Location: Parma, Italy
Year: 1977-87

KEY WORDS:
INTERVENTION
INSERTION
OBJECT
MOVEMENT
LIGHT
SURFACE



LEYEND:

On the left:
Above: Entrance for the new intervention east wing.
Below: Interior photo of the new intervention in Castelvecchio, Verona.

On the right:
1 - Photo of the exhibit of the ancient flooring.
2 - Photo of the services area.
3 - Detail of the insertion of a new opening into the old one.
4 - Plan of the entrance to the expansion of the East wing.
5 - Photo of the detail of the light and bathroom fixtures.
6 - Photo of a detail of the contrast between the materials of the existing building and new addition.



CASE STUDY 4:

Project: Galleria Nazionale
Architect: Guido Canali
Location: Parma, Italy
Year: 1977-87

KEY WORDS:
INTALLATION
INSERTION
OBJECT
MOVEMENT
LIGHT
SURFACE



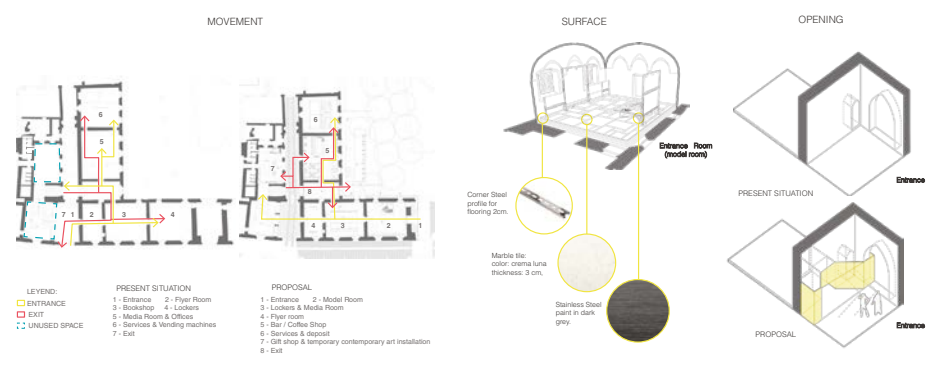
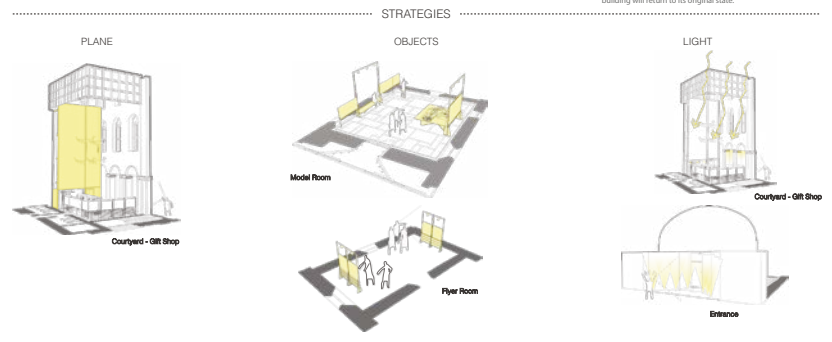
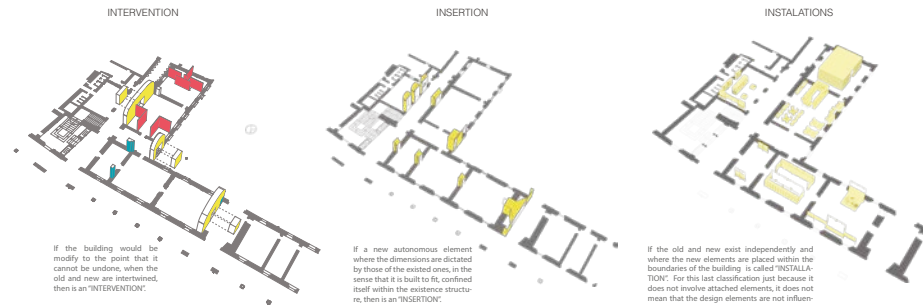
LEYEND:

On the left:
Above: Photo of the facade of the museum.
Below: Photos of the interior of the museum.

On the right:
1 - Section and elevation of the museum.
2 - Axonometric plan of the museum highlighting the installation.
3 - Interior elevation of the museum.
4 - Photo of the interior of the museum.

Fig.4.16 :
Board 3: CASE STUDIES
design by Federico Gancedo,
2017

CHAPTER 4 : THEORY AND STRATEGIES BEHIND THE PROJECT



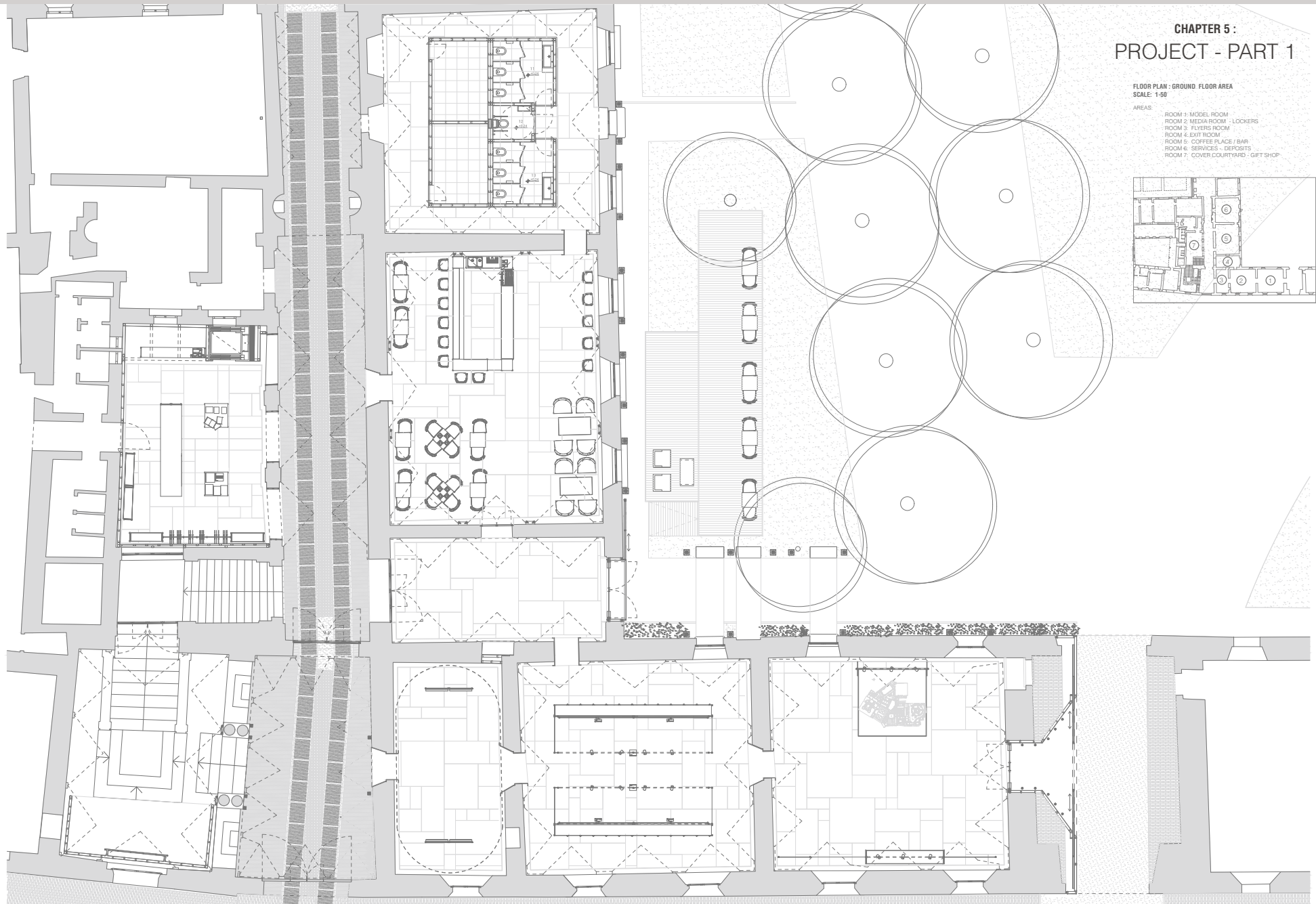
TACTICS

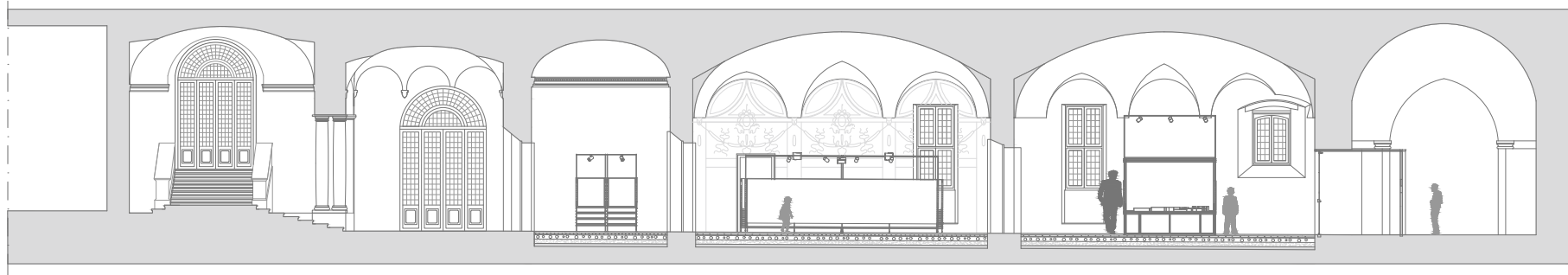
Fig.4.17 :
Board 4: THEORY AND STRATEGIES
design by Federico Gancedo,
2017

CHAPTER 5 : PROJECT - PART 1

FLOOR PLAN : GROUND FLOOR AREA
SCALE: 1-50

- AREAS:
- ROOM 1: MODEL ROOM
 - ROOM 2: MEDIA ROOM - LOCKERS
 - ROOM 3: FLYERS ROOM
 - ROOM 4: EXIT ROOM
 - ROOM 5: COFFEE PLACE / BAR
 - ROOM 6: SERVICES - DEPOSITS
 - ROOM 7: COVER COURTYARD - GIFT SHOP

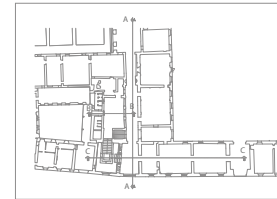




SECTION C-C
SCALE 1:50

CHAPTER 5 :
PROJECT - PART 2

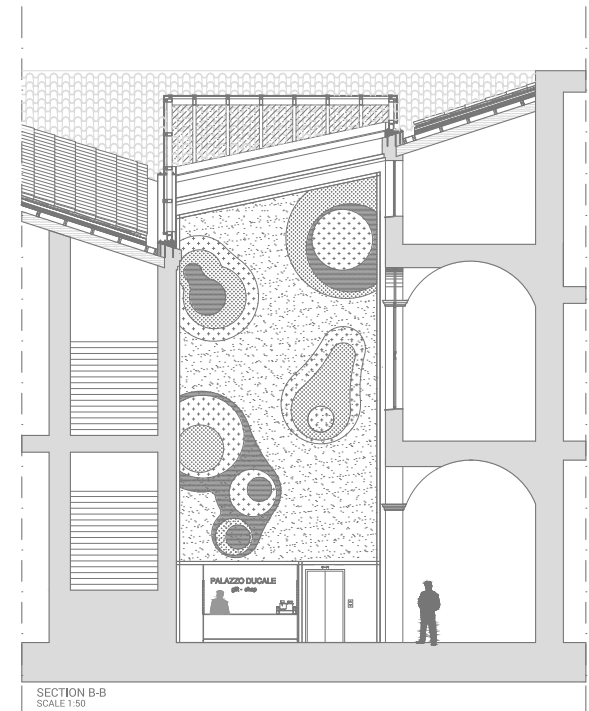
SECTION PLANS: A-A B-B C-C
SCALE: 1:50



REFERENCE PLAN



SECTION A-A
SCALE 1:50



SECTION B-B
SCALE 1:50

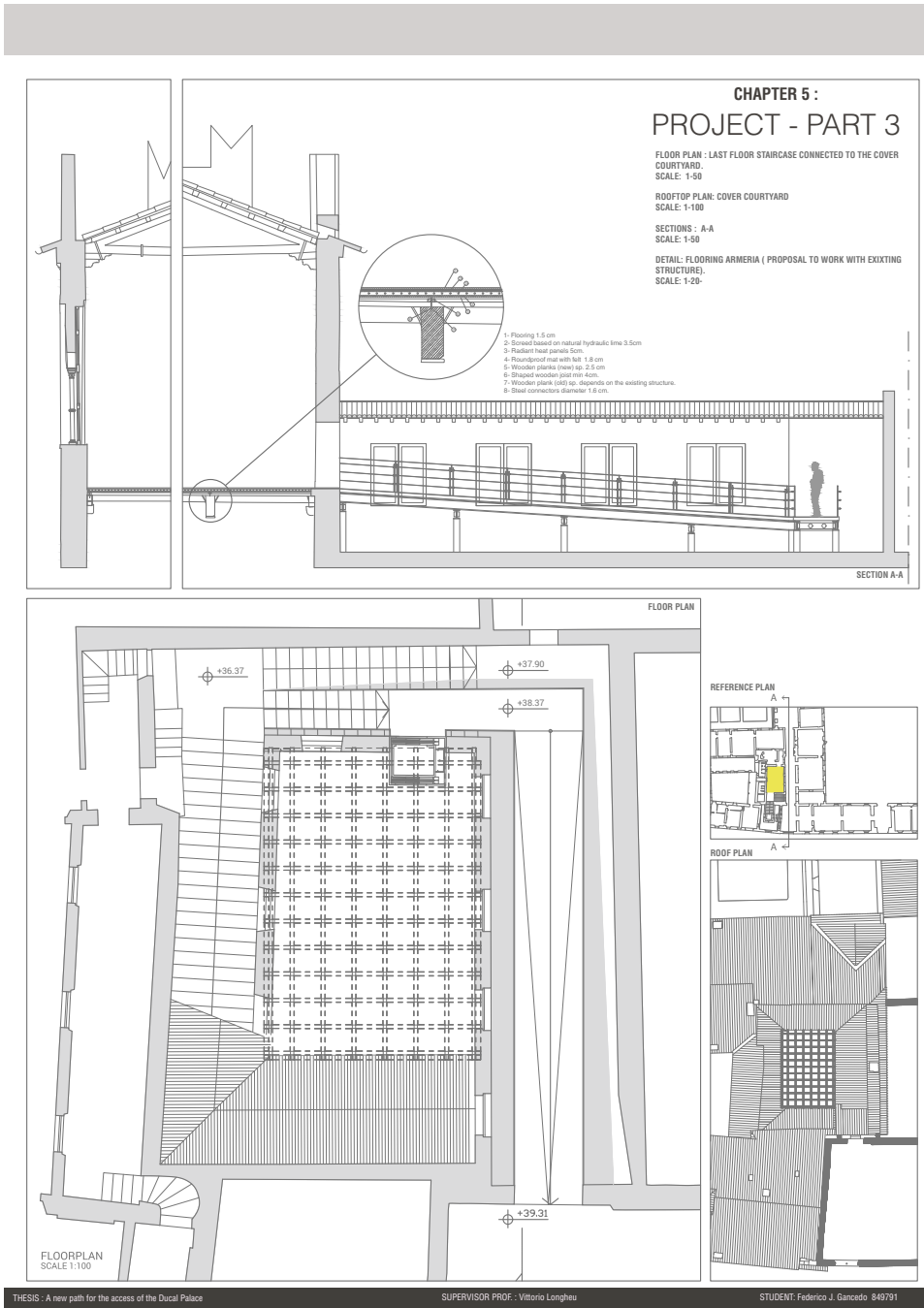
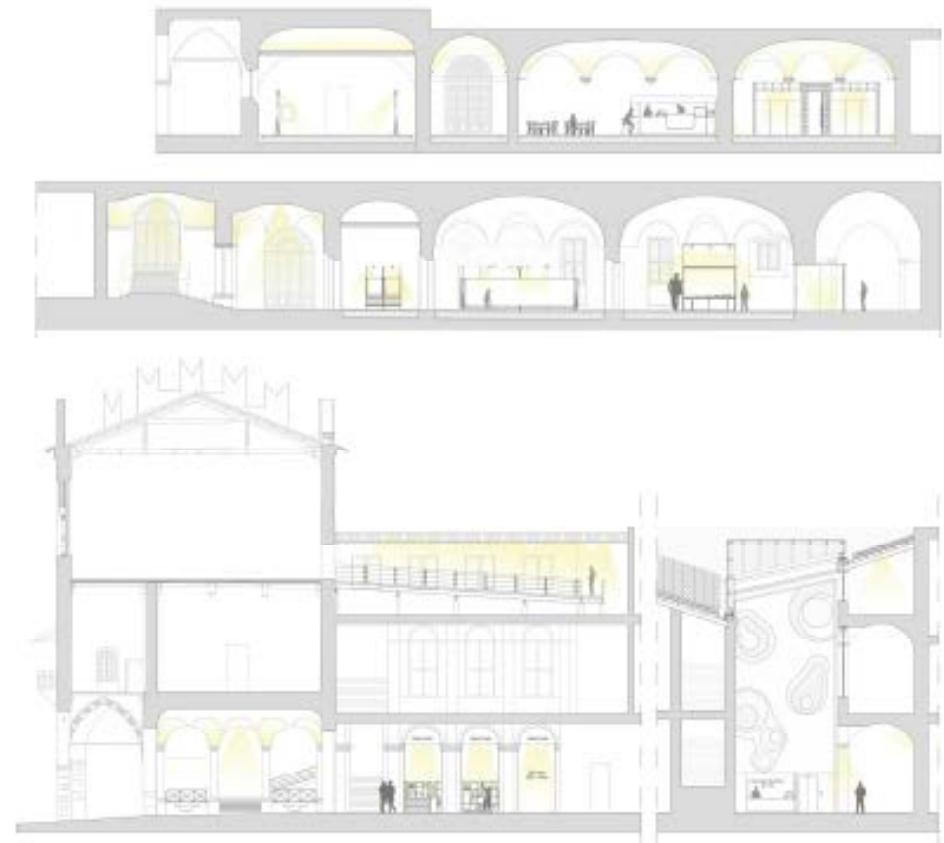


Fig.4.18 (previews page left) :
 Board 5: MASTER PLAN OF THE
 GROUND FLOOR
 design by Federico Gancedo,
 2017

Fig.4.19 (previews page right) :
 Board 6: SECTIONS
 design by Federico Gancedo,
 2017

Fig.4.20 (image on the right) :
 Board 7: FLOOR PLAN OF THE LAST
 FLOOR OF PALAZZO DEL CAPITANO
 design by Federico Gancedo,
 2017

Fig.4.21 (image on the left) :
 Board 8: ANALYSIS OF THE LIGHT APPLI-
 CANCES
 design by Federico Gancedo,
 2017



CHAPTER 5 :
PROJECT - PART 5

FRONT VIEW GREEN WALL DETAIL
SCALE: 1-20
PLAN ELEVATOR AREA
SCALE: 1-20
DETAILS A B & C
SCALE: 1-10

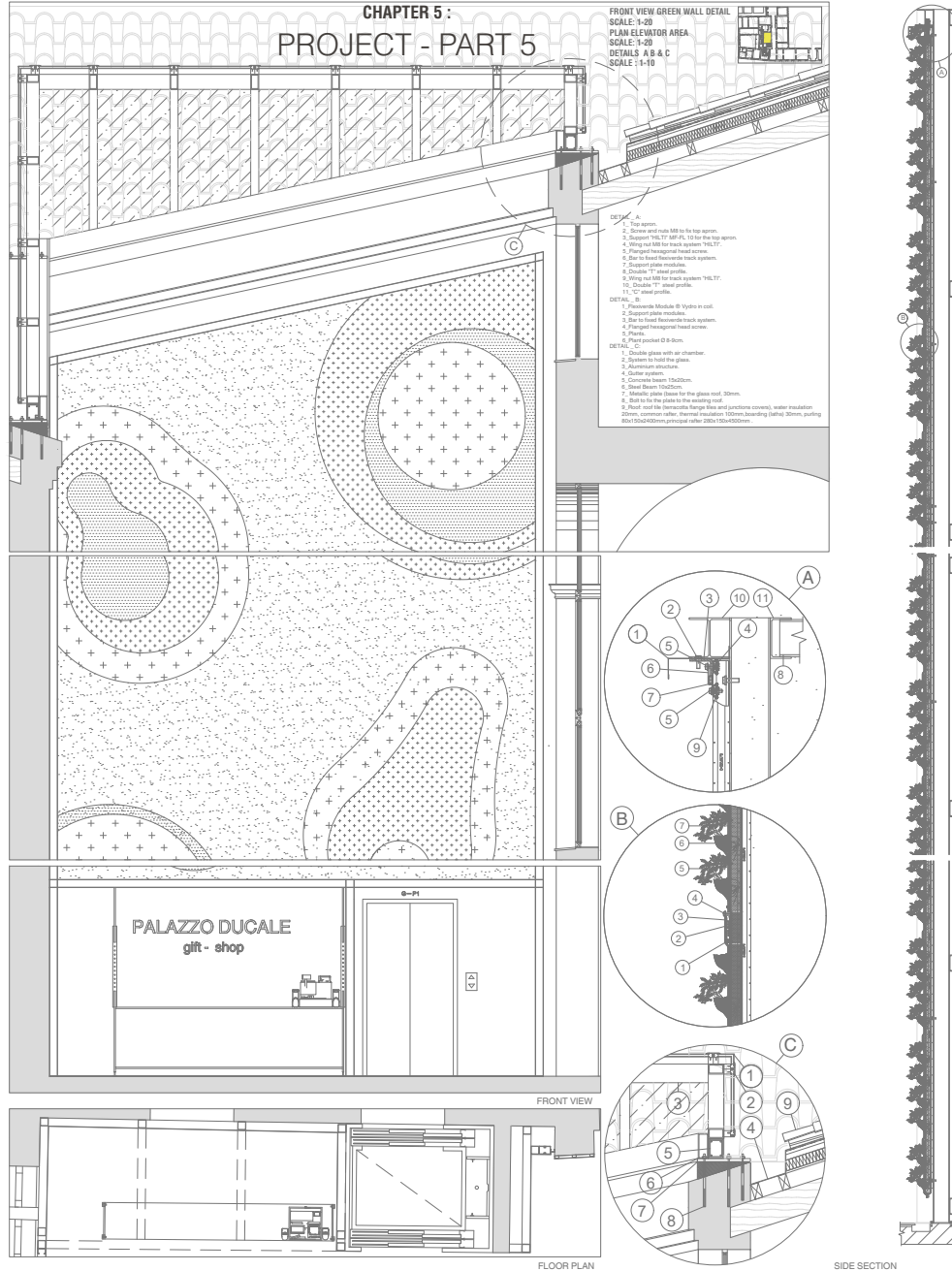


Fig.4.22 :
Board 7: DETAIL GREEN WALL
COVER COURTYARD
design by Federico Gancedo,
2017

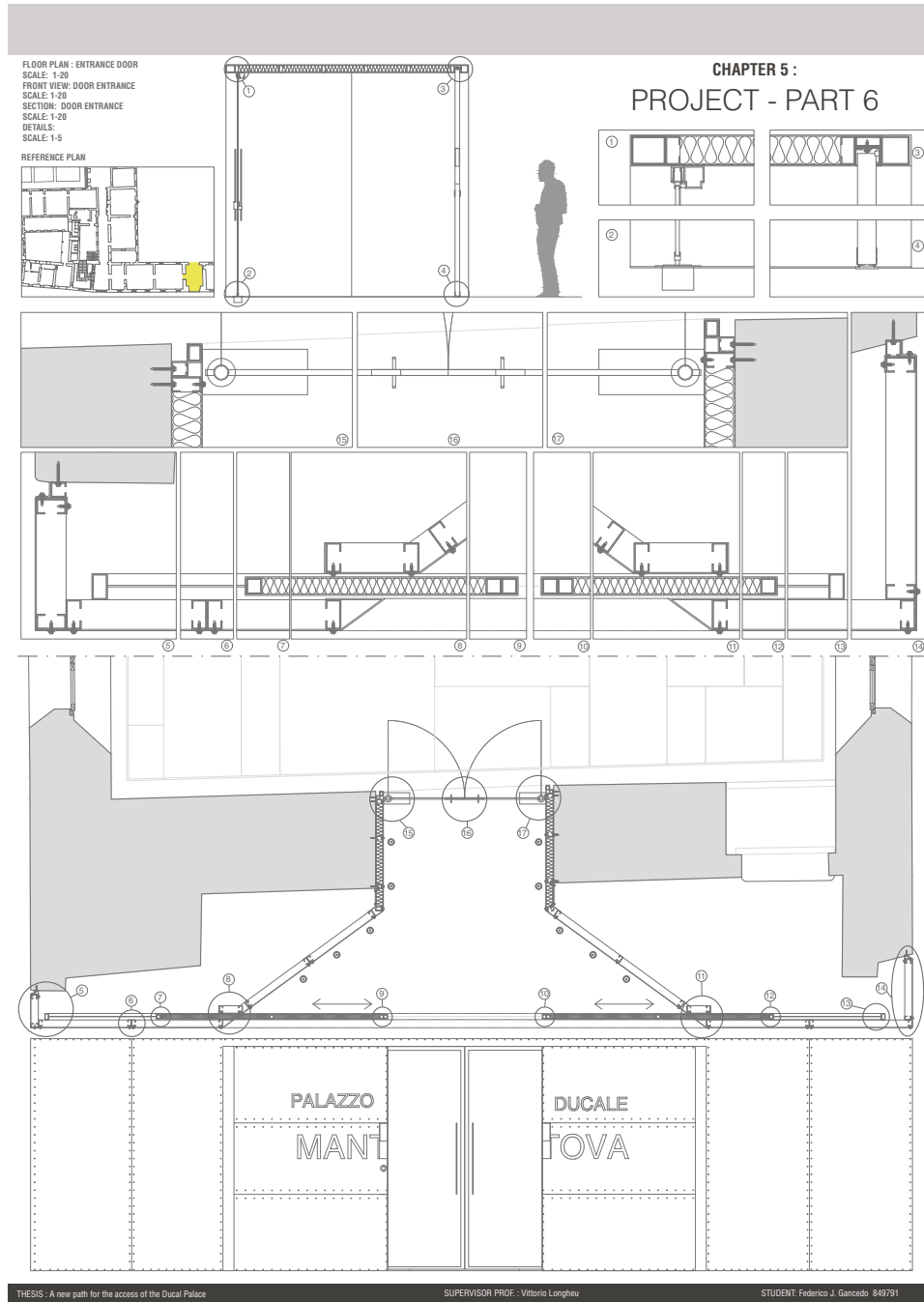


Fig.4.22 :
Board 7: DETAIL OF THE ENTRANCE
design by Federico Gancedo,
2017

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