

Firenze
16-18th June 2014

Workshop:

**ARCHITECTURE,
ARCHAEOLOGY
AND CONTEMPORARY
CITY PLANNING**

**PROCEEDINGS OF THE
WORKSHOP**

**editors:
Giorgio Verdiani & Per Cornell**

Firenze
December 2014

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16-18th June 2014

Scholars workshop:
ARCHITECTURE, ARCHAEOLOGY AND CONTEMPORARY CITY PLANNING

The workshop took place in Firenze, via San Niccolò, 93 at the Dipartimento di Architettura in the Aula Magna placed at the first floor of the palace.

Workshop organizing committee:
Giorgio Verdiani, Per Cornell, Alessandro Merlo, Gianluca Belli.

The workshop has been realized in collaboration between Architecture Department of the University of Florence, Italy, the Department of Historical Studies, University of Gothenburg, Sweden and MOLA (Museum of London Archaeology, UK)



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WORKSHOP PRESENTATION

In discussions on urbanism, the need to involve new actors has been a major theme of recent debate. In this field, throughout Europe, various ways of allowing citizens to take a more direct part in planning is stressed. It is also important to look at the role or lack of role played by particular research fields. Architecture plays a major role in city planning. While archaeology has become increasingly involved in field projects in urban environments, the discipline seldom plays an important role in city planning. In several countries and particular cities this situation has been questioned during the last decades.

In Sweden, certain studies indicate an increased interest in an active involvement of archaeology from the part of individual municipalities and provincial governments, and even on the state level in certain cases.

In France, Lavendhomme at Inrap has discussed various possible new kinds of uses of archaeology in the planning process, and similar discussions start to appear in other countries. In the UK, archaeologists are increasingly involved in mitigating heritage impacts of building projects at the design stage rather than during construction (excavating).

To take just one example, in Sweden the archaeologist Stefan Larsson has developed a project with the municipality of Kalmar, in which

city planners, architects and archaeologists collaborate in making suggestions for a city plan in a segment of the city.

In this workshop we will focus on possible new ways of collaboration between architects and archaeologists. We wish to open a new kind of communication between these research fields and related praxis.

The possible contributions from archaeology include questions of conservation, diffusion of archaeological knowledge by different means, but also other fields, including practical knowledge on the development of particular districts over time, general knowledge in comparative studies of urbanism, questions of design or questions of "gestalt" in urban settings, and the intersections between archaeology, architecture and public art.

We hope this workshop will help to open this field, and that it will be followed by other scholarly meetings on more limited particular cases and questions and, potentially, by a larger conference building on the workshop's outcomes.

Giorgio Verdiani, Per Cornell

PROCEEDINGS

WHICH IS THE POSSIBLE RELATIONSHIP BETWEEN ARCHITECTURE AND ARCHAEOLOGY?

Alessandro Merlo, Riccardo Butini

DiDA (Dipartimento di Architettura) – School of Architecture – University of Florence

Abstract: The common times of architecture and archaeology design are not often the same. The architectural design takes place in a property dimension, self-referential and sometimes far from the peculiarities of the environment. Otherwise, ancient and modern history of Italian architecture, which we will take as an example, witnessed the inseparable relationship between design and history.

In a landscape layered like the Italian one, grown slowly through repeated processes until the last century, but evidently destroyed in its structure due to decades of wretched urbanizations, the moment of “comprehension” is a basic step for a proper architecture design.

If we read the urban and architectural history of the city as part of a non-stop construction site in which, through a critical attitude, is can still attend inside the sign of a renewed continuity, there will be the condition for a constructive and interdisciplinary reflection. This will inevitably require an open attitude both by the archaeologist and the architect (often mutually not willing to change their positions) to ensure that the timing of the two disciplines become the same, in order to integrate one each other in a fluid cognitive and design process.

We'll show a case of restoration and valorization of a ‘fragment’ of the village of Pietrabuona, placed in so-called “Svizzera Pesciatina,” high hilly area behind Pescia, more properly known as Valleriana. The ruins of the church, then transformed into a defensive fortress, are in a prolonged state of abandonment that promotes the already started degradation process.

The proposed intervention, gained from research concerning the exploitation of minor historical settlements, aims to show the possibility to reach an architectural design about historical contexts through a multidisciplinary reflection, trying in this way to give a possible positive answer to initial question.

Keywords: Architecture, Archaeology, Pietrabuona, Survey, Design.

Introduction

For several years, contemporary architecture has been challenged with the complex issue of recovery and development of smaller centers (disused factories as of the areas related to them); in terms of design research, such a challenge extends to a more seasoned yet present issue: building in the historic city (Fig. 1).

A city is built on itself, overcoming misery, war and destruction. Just like the individual buildings forming it, the city has come to be over time, a long time and to our eyes stands out as a complex yet solid (or uniform) entity. Its parts come together and live together in exemplary harmony, while they still show oblivious differences in style.

Likewise the smaller centers take shape a little

by little, through annexations or extensions.

Yet these settlements have suffered, often more than the historic city, interventions that have not always been carried out with competence and respect.

The arrival of modern technology as well as the gradual lack of interest towards the use of local materials has later led to a progressive loss of identifying features, and to an altered relationship, which had traditionally bound function and form.

The architectural composition requires a thorough knowledge and a constant confrontation with the historical time, the established traditions and the core essence of the site. We believe that the project still exists within them, and that the sites possess the ability to suggest functions and forms able to restore

the balance subverted, if interpreted with the criteria of today.

But once what to keep and what to replace has been established, it is only half the battle. Regardless what scale one works with landscape, city or building, the goal will be to find the right way to bring together the old parts with the new ones, following the track of renewed and necessary continuity.



Fig. 1 – *Design model of the fortress of Pietrabuona* (copyright: Andrea Aliperta)

The architectural project needs to confront time and works with time itself.

Bringing together its pieces means bringing together the ages of architecture until they meet. If it is true that we live in a state of urgency, that we need to re-use the existing buildings, that we needn't lose our heritage and that we need to protect our landscape, we must act with a critical consciousness, not making mistakes to be added to those already committed.



Fig. 2 – *The early medieval settlement of Pietrabuona*

So, the pressing of time, which has ever marked the season of building speculation and the destruction of the identity of our sites, can't dictate our actions, but rather a conscious acceleration to research.

Pietrabuona's case study

In this paper we show a case of restoration and valorization of a fragment relating the castle of Pietrabuona (Pescia - Pistoia).

The proposed interventions gained from research concerning the exploitation of minor historical settlements (Fig. 2), aims to show the possibility to reach an architectural design about historical contexts through a (cross-disciplinary) multidisciplinary reflection, trying in this way to give a possible positive answer to (initial) the question: which is the possible relationship between architecture and archaeology?

Documentation

For the last few years, the smaller centers of the so-called "Svizzera Pesciatina" (the valley runs through by the torrent Pescia di Pescia) have been investigated by a cross-disciplinary working group (Fig. 3). Because of this character of the team, we could understand how such settlements changed over the centuries, in terms of urban plans and buildings. The survey of Pietrabuona, the third castle investigated after Aramo and Sorana, belongs to this line of investigation.

The settlements up the mountains consist of ten fortified hamlets, dating back to the 10th and 11th century, mainly erected for economic and military defense. In particular, because of the specific geographic location of Valleriana - bordering on the possessions of Lucca and Pisa on one side, and on the possessions of Pistoia and Florence on the other side - here the settlements, under the control of either ruler, always played a key strategic role.

Pietrabuona, built by Pietro II, Bishop of Lucca between the 896 and 933 AD, is one of the rare cases of "incastellamento" in Tuscany in the 10th century. After the fail of the first "incastellamento", a new castle was built in

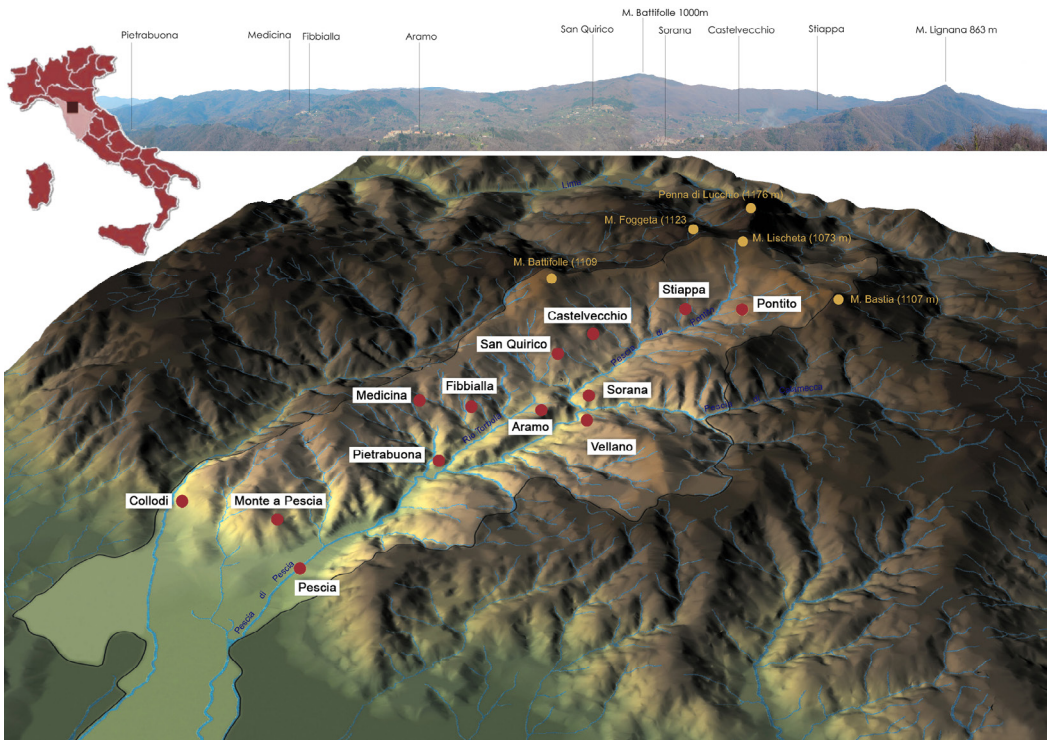


Fig. 3 – The Valleriana and its ten fortresses

the 12th century, when the new stable demographic consistency allowed the success of the settlement during the Middle and the Modern Ages. In the 14th century Pietrabuona was conquered by Pisa, but brought soon under the Florentine control (Fig. 4).

The Pietrabuona settlement survey was operated with multiple-integrated tools and digital technologies, using a combination of a laser scanner, total station and digital photogrammetry (Fig. 5). Here the word “integrated” describes the *modus operandi*, both the use of tools and procedures to acquire diversified data (relative to dimensional, morphological, technological aspects), as well as the multi-disciplinary approach adopted throughout the study. Such conditions are of paramount importance in order to compile a thorough knowledge base. The laser scanning equipment allowed the survey of all the buildings in a few days and a wide range of output, that became an essential tool for stratigraphic analysis. In this way it has been possible to identify the buildings’ relative chronology

and to analyze the wall building techniques, the architectural elements and the building types. We were also able to define and develop measure-chronology curves, always based on good architectural survey. All these data permitted to know the transformations of the settlement (Fig. 6).

The most important architectonic evidence of Pietrabuona rebirth is the S. Matteo church.

The building is situated on the extremity of a rocky spur, controlling an old route connecting the castle with the nearby village of Medicina (Fig. 7). This construction is connected to the circulation of skilled workers from the Antelmi’s Valley to Lucca’s country, and it is an example of the introduction of squared stones in the 12th century. The hall of the church measures 9,30 meters by 14,25 meters. The apse, less than a perfect half-circumference, has a diameter of 5,57 meters (Fig. 8).

There are still preserved two Romanesque portals on the southern wall, a little door near the apse and a bigger door in the western part. They have monolithic architraves set on sculpted corbels. Both the portals are crowned by arches set on molding corbels,



Fig. 4 – The circle of walls represented in the cadastral map drawn up by Ing. Mazzoni in 1783 (copyright: ASFI, Capitani di Parte Guelfa Cartone XXVI, n. 36)

which are not directly put on architraves but on a squared stone. The principal door has

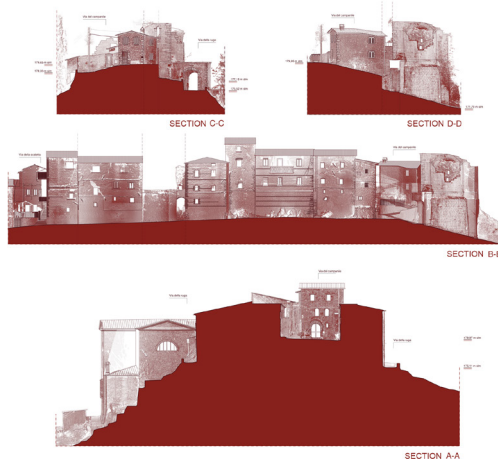
also a hood molding. In the southern wall there are also two small windows with monolithic jambs and arches and molded corbels and sills. Under the eaves, the building doesn't have hanging arches, known in "Lombard"



Fig. 5 – Snapshot of the point cloud made with a 3D laser scanner Faro 8080



Fig. 6 – Environmental sections of the village of Pietrabuona (copyright: Andrea Aliperta)



buildings, but it has molded diatonies (Fig. 9). Probably in the same years, also a new tower and maybe a palace were built in the upper part of the settlement. Hypothetically, we have identified the «palatium», in a corner between the 14th century hospital and the apse of S. Michele church, and the tower at the bottom of the bell tower.

After the fail of the first “incastellamento”, the buildings testify the rising of the village, now densely populated and characterized by an important social differentiation. In this period, nearby the aristocratic buildings, we must suppose wooden houses belonging to the lower class and not yet preserved.

It's not surprising that in the 13th century Pietrabuona tried to disengage itself from Lucca with the Imperial support, and, in the first part of the 14th century, started to construct a new



Fig. 7 – The apse of the Church of S. Matteo

by four windows with arches. The tower, whose eastern side was built on a preexisting building, has some small windows with architraves on the upper floors. Meanwhile, before the first middle of the 14th century, the settlement radically changed, probably under the government of Castruccio Castracani in Lucca and during the war between Lucca and Florence. A new tower was built on the ancient church, now becoming the “Rocca” and the settlement was encircled by new walls

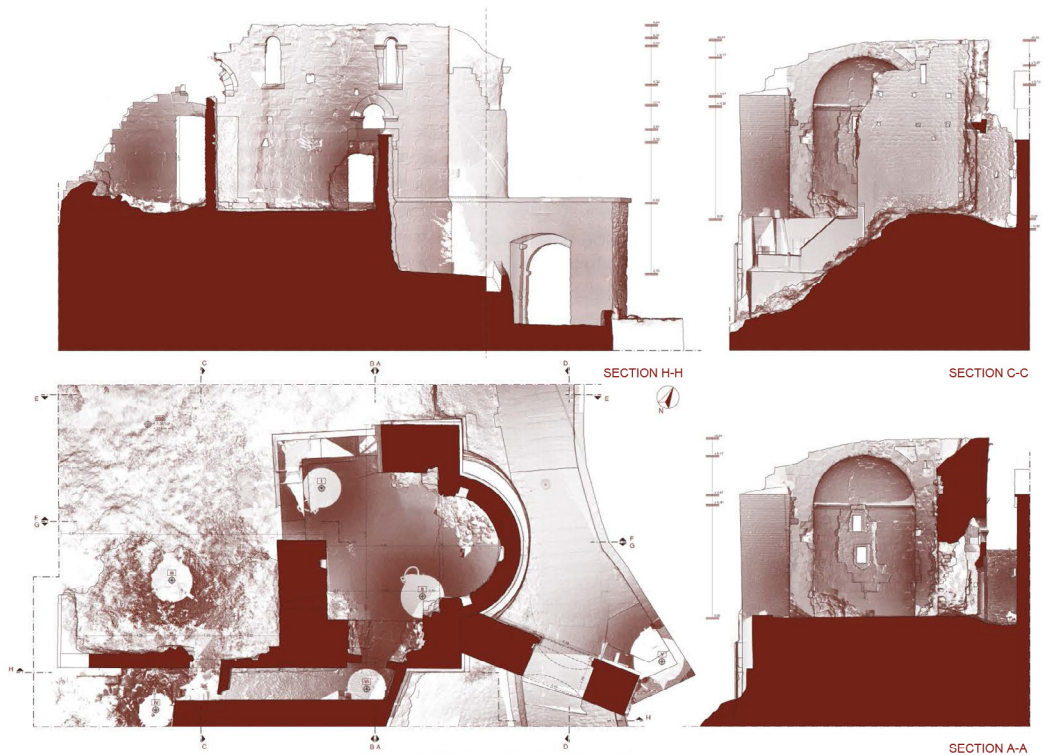


Fig. 8 – Survey of the church of S. Matteo (copyright: Andrea Aliperta)

building for the rural Commune’s offices (Fig. 10). The new building is composed by the “house of Commune” and the tower, which represent two of usual architectonic elements of the communal power places in Tuscany. The first has a quadrangular plan with sides measuring 11 meters. A loggia, formed by two big arcades on the southern and western wall of the building, occupies half part of the lower floor. The upper floor is lighted

(Fig. 11). Probably in the same years a new oratory was built in front of the Commune’s Palace and, because of the destruction of the old church, in the 14th century it gradually inherited all the ecclesiastical offices and rights (Fig. 12). The portal of the new church is like the minor one of the old church, but the wall technique uses less expensive hewn stones. We don’t know the exact date of its construction: probably it was built in the 14th century, in the same building plan that included the new walls with the Rocca, at the entrance of the

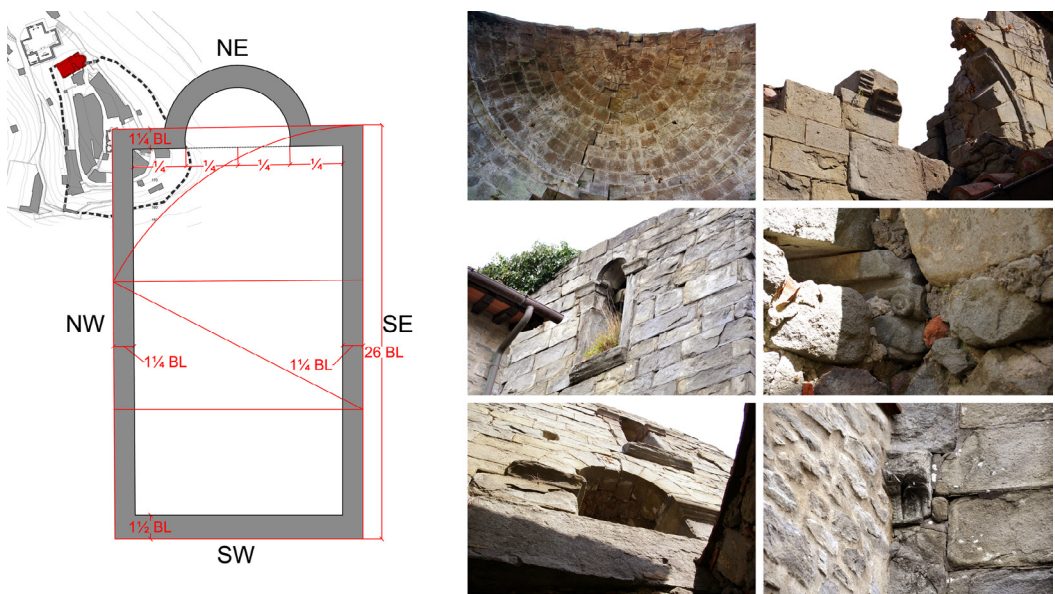


Fig. 9 – Dimensional analysis of the church of S. Matteo

settlement, and maybe the Commune's Palace. In the second part of the 14th century Pietrabuona was definitively conquered by Florence. The fortress-gate system became a key feature of the final city wall. The architectural elements testify the Florentine presence and the circulation of new trends in cutting stone, construction and living. In the 16th century Pietrabuona, like all the Valleriana valley, was finally a pacific area in the Florentine State and lost its military role.

Between the late 16th and early 17th century we have the construction of new houses and the modernization of old houses. In the following centuries, buildings reflected the shift of the population and his economic interests in the valley and the rivers. There are few new buildings and they are rarely aristocratic homes. Significantly, the most rich houses of the 17th and the 18th century are in the lower part of the settlement. In the 19th century a new big church and a

Fig. 10 – Dimensional analysis of the Commune's Palace



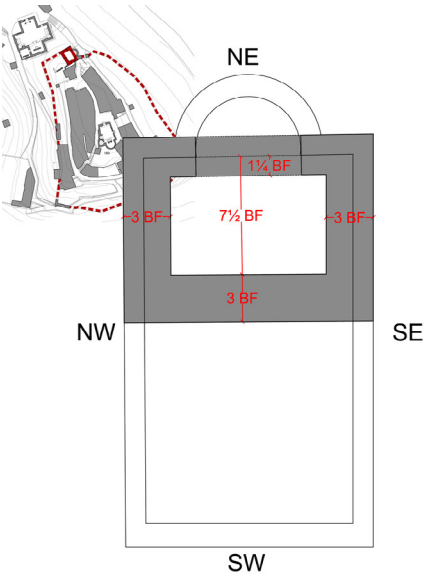


Fig. 11 – Dimensional analysis of the Florentine's tower

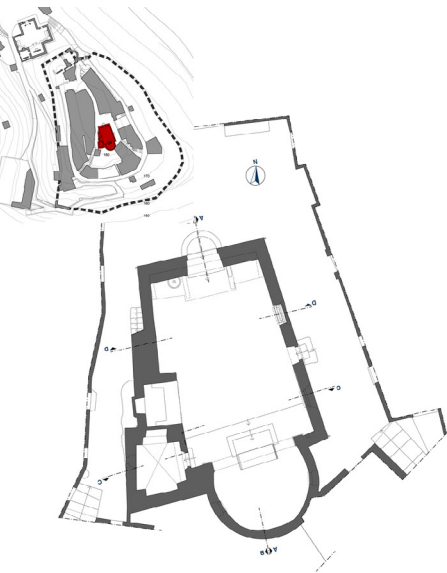
new fountain were built in this area (Fig. 13). As many restorations testify, the village had a demographic consistence until the 20th century, when some earthquakes brought down many houses. After a new economic crisis in the first part of the 20th century, that involved paper industry (the most important activity of the valley), and a new big demographic collapse, now the castle is almost completely uninhabited. Documentation, as well as archeological and

architectonic studies, are important instrument to control the necessary reoccupation of the village and to save the rural and lower historic buildings.

Project

The site on which stands the fortress, which in the past enclosed the castle to the north, it's today dominated by the volume of the church of SS. Matteo and Colombano, built at the beginning of the nineteenth century between

Fig. 12 – The church of S. Michele



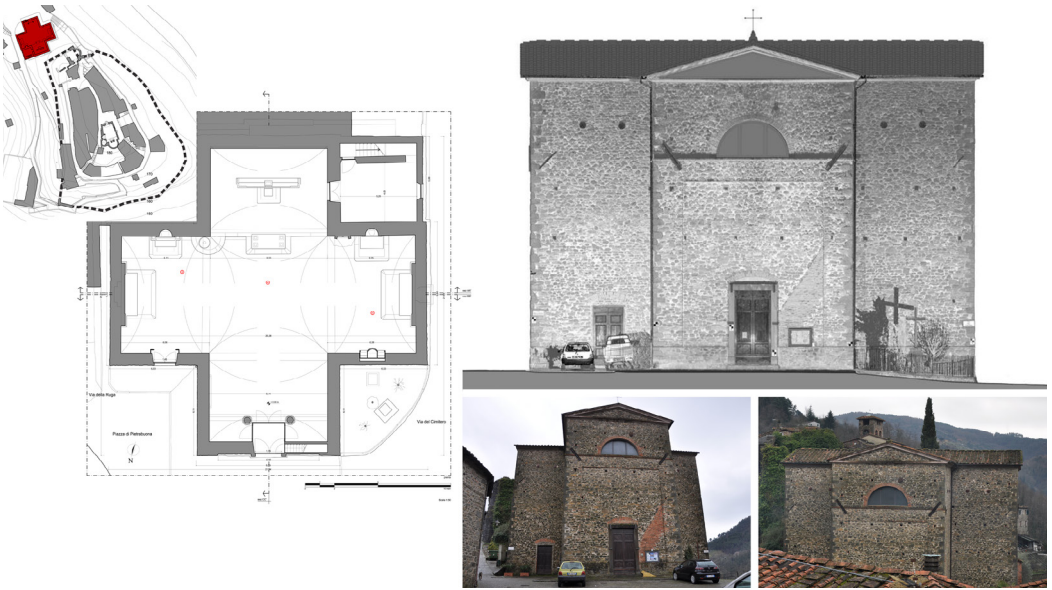


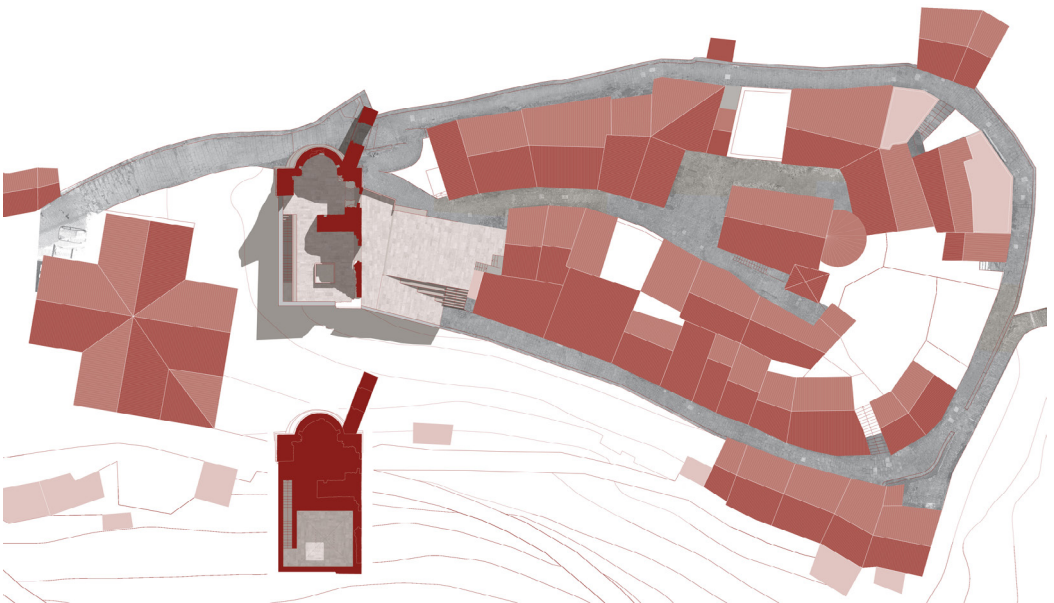
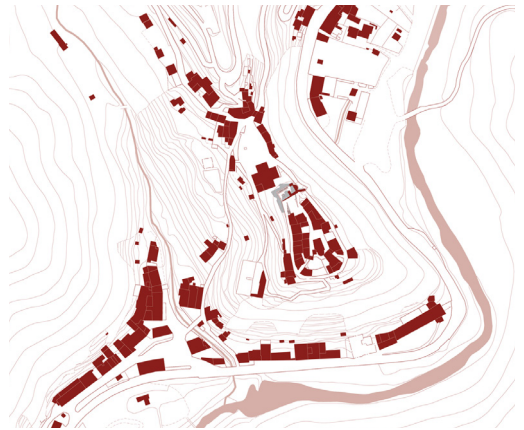
Fig. 13 – The church of SS. Matteo and Colombano

Fig. 14 – Plan of the town of Pietrabuona with the project intervention (copyright: Andrea Aliperta)

Fig. 15 – Project plan: the Rocca and the opposite square. Below, the space provided below the floor of the church (copyright: Andrea Aliperta)

the castle and the village developed along the connection path with Medicina. The imposing building was built near the rocky outcrop on which the fortress stands, without particular attention to the pre-existence (Fig. 14).

If the view to the north of the fortress was



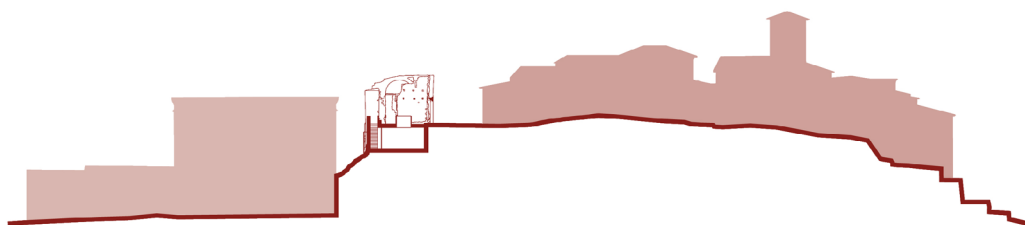


Fig. 16 – Section of the Rocca: the ruins of the building and the new room project (copyright: Andrea Aliperta)

Fig. 17 – Render view of the square (copyright: Andrea Aliperta)

Fig. 18 – Render view of the interior of the church (copyright: Andrea Aliperta)

Fig. 19 – Render view from inside the church towards the landscape (copyright: Andrea Aliperta)



almost completely negated by the size of the church, to the south a residential building has been recently renovated and expanded almost in adherence to the façade South-East and its own ground was also closed by a wall. This fact has prevented access to the area, already foreclosed from the north side of the ground unstable and by the altitude difference between the church (SS. Matteo and Colombano) floor and the fortress (Fig. 15)

The old building is today in a state of decay and isolation; the partial containment works, made in the 70s to prevent further collapse of the walls, have only been able to curb the static problems affecting the walls themselves.

The project idea is to transform the ruins in a public space, thought for the community.

The reuse idea seeks to restore the ancient bond between the fortress, the castle and its inhabitants. Therefore in formulating a hypothesis of re-functioning, it had to first understand how to find a physical connection between the castle and the fortress, making it accessible.

This first phase of the project was very difficult, because it was decided to intervene (carefully within the old tissue) by removing the building leaning against the fortress, which appears today in shapes and materials foreign to the context. The decision to use the demolition as a project tool, has not been easy (Fig. 16).

The old church of S. Matteo, at the time of

its construction was an undoubted emergency in the urban context of the castle and its façade had probably a churchyard, whose dimensions were proportional to those of the facade. So is therefore not possible that there could be a building so close, hiding it for a good portion (it presents also moldings and



Fig. 20 – Photographs of the model study (copyright: Andrea Aliperta)

careful finishing suggest that they were clearly visible). In addition, if we refer to changes in the building in the fourteenth century, it can be assumed that the east façade, entrance to the defensive tower, could be used easily, and with the current configuration it's impossible. These assumptions are finally validated by the Leopoldine's Lands Registry that don't show the building concerned.

The fortress and the castle are again directly related through a new public space, which has no limit as the front of the old factory, but also goes beyond it by incorporating (occupying) what was in ancient times the surface of the old church.

To do this, it is thought to reconstruct what could be the outline of the religious building and to realize some connected spaces (Fig. 17). The project is composed to three main parts: the churchyard (or square), the space inside the old perimeter (fig. 18), the underground room.

The churchyard reconnected the urban space. It's resolves, whit inclined planes and steps, the existing paths.

The new floor is set to the same share of the old church. The ancient entrance leads to an open space from which to view the landscape (fig. 19), to visit the ruins of the fortress and

to enter in the underground room. This is a quiet place where the physical landscape leaves space to the landscape of the mind.

The measurements of the new parts are suggested by the ruins of the fortress.

The new plant has the same size of the old plant. A linear stair is placed on the track of the ancient perimetral wall.

The project proposes traditional building materials and traditional technologies too. So it guarantees a correct insertion (in the context) and a long life to the new architecture which, maybe, will be again a ruin (Fig. 20).

Conclusions

The common times of architecture and archaeology design are not often the same. The architectural design takes place in a property dimension, self-referential and sometimes far from the peculiarities of the environment. Otherwise, ancient and modern history of Italian architecture, which we will take as an example, witnessed the inseparable relationship between design and history, or archaeology.

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