



THE GIRIFALCO FORTRESS



History of the Girifalco Fortress: from Medici to our days through the period of Pietro Leopoldo's reforms

February 2017

Publication realized with support of Tuscany Regional council within

Festa della Toscana 2016

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INTRODUCTION

This publication aims to provide elements concerning the history and evolution of the Fortress of Girifalco, from the deep structural changes made in 1500 under Cosimo I de' Medici to the present day through a period of major reforms made by Pietro Leopoldo in 1700 and it has been realized with support of Tuscany Regional council within Festa della Toscana 2016. The document consists of four parts:

1. HISTORY AND DESCRIPTION OF THE SPACES

Texts and graphic material provided by the architect Aura Gnerucci, Maria Teresa Idone, Dania March, based on an elaboration of the laboratory results of interdisciplinary thesis on the subject of the Girifalco fortress, held at the Faculty of Architecture of Florence, coordinated by Profs. Giacomo Pirazzoli, Amedeo Belluzzi, Peter Matracchi.

2. LAPARELLIAN INTERVENTIONS TO THE GIRIFALCO FORTRESS

Texts and images taken from the chapter "Francesco Laparelli architect from Cortona in Malta" (curated by architects Aura Gnerucci, Maria Teresa Idone, Dania March), from the catalog of the exhibition held at Palazzo Casali in Cortona in 2009, organized by the Academy Etruscan, from town of Cortona and the MAEC, published by Edizioni Tiphys.

3. PETER LEOPOLD'S REFORMS

Chapter about Pietro Leopoldo, who provides a brief overview of the reforms carried out by this 'enlightened ruler' 1700 and the implications that this had for Cortona, the Chiana Valley and the Fortezza (produced by the Cultural ONTHEMOVE through a document summary and networked selected materials).

4. PROJECT OF RESTORATION AND ENHANCEMENT

Summary of design documentation for the recovery and development of the Fortress of Girifalco developed in 2015 and in 2016 by the Cultural Association ONTHEMOVE.

The project coordinators

The assembling of the documents was supervised by the Cultural ONTHEMOVE, born in 2010 with the aim of promoting the knowledge of the visual arts and all forms of expression, with particular reference to photography and new media. Main activity of the Association is the International Photography Festival 'Cortona On The Move' that in 2017 will reach its 7th edition.

ONTHEMOVE stands out from the start of its activities for a particular focus on the development and upgrading in innovative and original way historical monuments and abandoned buildings. The Cortona On The Move exhibitions are characterized in fact for being arranged in particular locations almost 'forgotten' and the festival has helped make again usable evocative ambience and architectural jewels of the Tuscan town of Cortona, closed to the public for decades.

ONTHEMOVE from spring 2015 manages the Fortress on the basis of a Convention, signed with the City of Cortona, whose main purpose is to encourage the designing of projects aiming at upgrading the activities of the Fortress with the ultimate aim of establishing an international production center socio-cultural, artistic exhibition of the highest level of excellence and training.

Thanks to

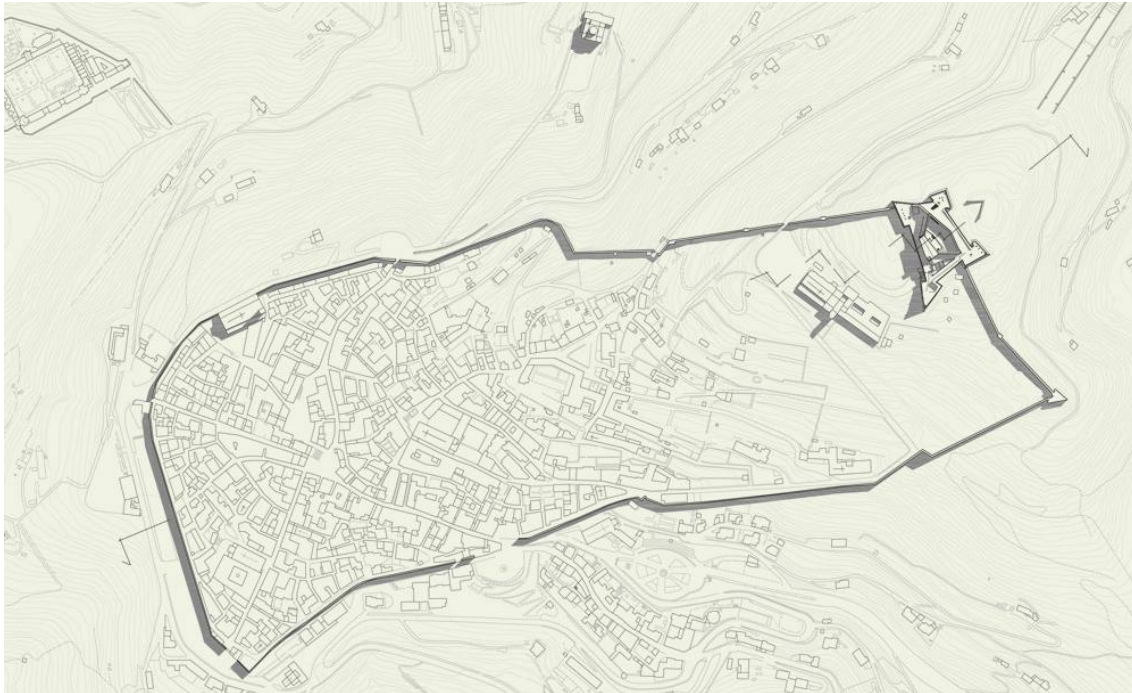
A special thanks for the support in the realization of this project to::

- Aura Gnerucci, Maria Teresa Idone e Dania Marzo
- Aleksander Masseroli Mazurkiewicz
- MAEC, Museo dell'Accademia Etrusca e della Città di Cortona
- Tiphys Edizioni
- Lorenza Carlini
- Next 2.0
- Carlotta Viola e Chiara Calzini

1. BRIEF HISTORY AND SPACES DESCRIPTION

"It has a most irregular layout based around its four asymmetrical bastions, which they were forced to build in this manner as a result of the uneven hilltop, but also to exploit the old town walls."

Odoardo Warren, 1749



Brief history

There has probably been a fortress on the hilltop overlooking Cortona since the 5th or 6th century BC, when the original Etruscan walls followed a course which roughly corresponds to the existing perimeter walls of today. However the first historical records describing a 'strong and beautiful fortress' date back to 1258 AD. Having been plundered and sacked several times during the wars with Arezzo it was sold to the Florentine Republic in 1411, together with the entire city of Cortona, although reconstruction work only began in 1527. The first task was to connect the fortress to the town walls, thereby creating a pentagonal-shaped, internal courtyard.

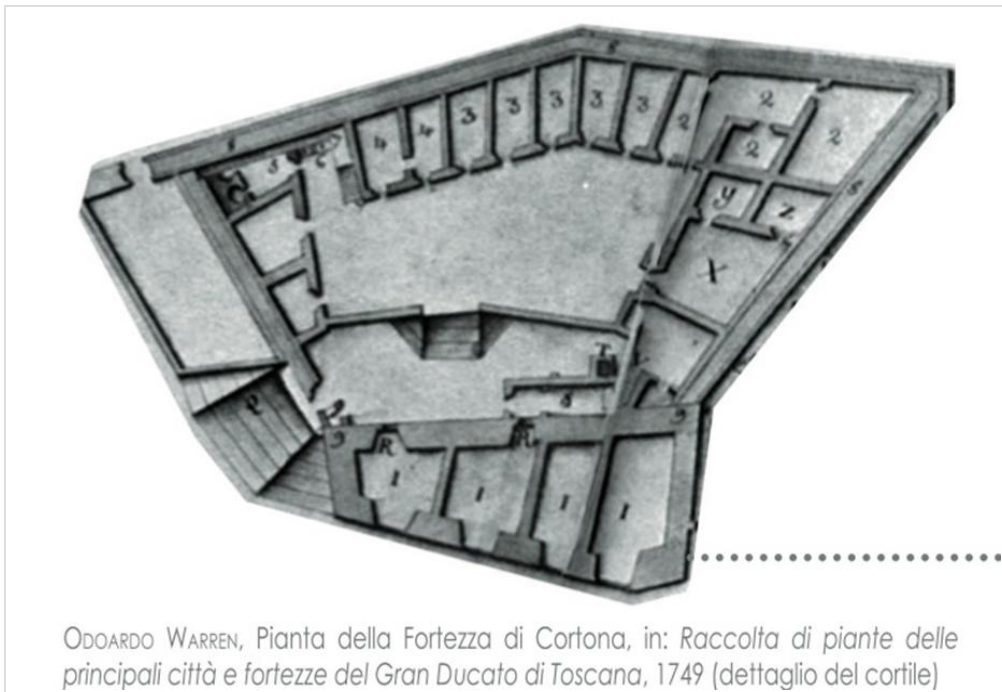
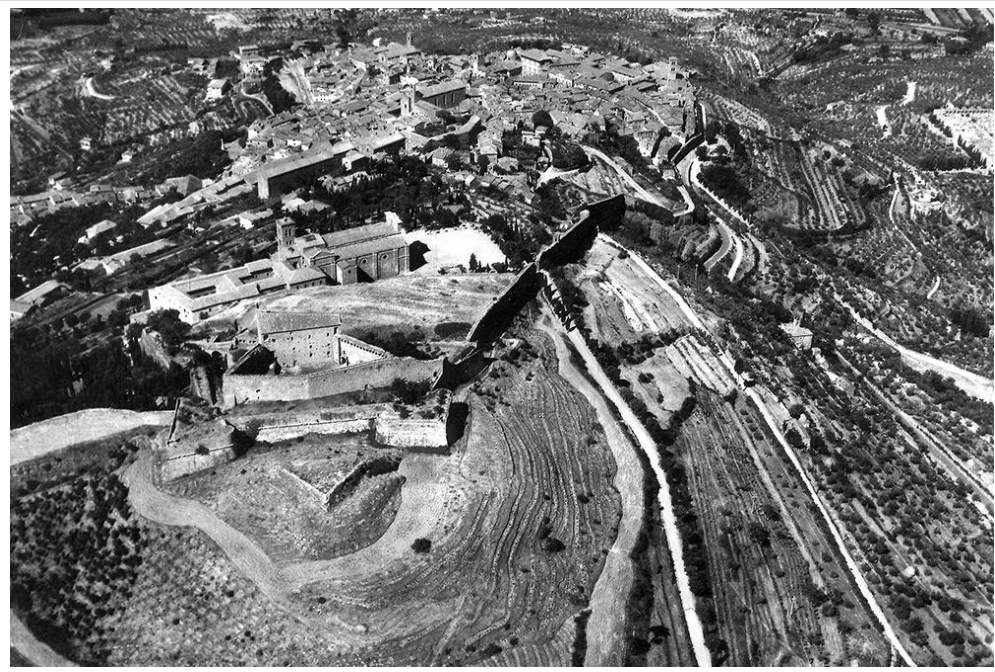
But it wasn't until the middle of the 17th century that it took on its present appearance, at the time of the heavy militarisation of the De Medici territories. In 1556, on the order of Cosimo De Medici the 1st, construction work began on the four bastions and the ravelin under the guidance of engineer Gabrio Serbelloni and architect Francesco Laparelli, both of whom also collaborated on the design of the fortifications of La Valletta harbour on the Island of Malta.

Throughout the 16th century the introduction of modern artillery necessitated the gradual replacement of the inadequate, mediaeval, perpendicular walls, with the new bastion fortification design, suitable for withstanding direct assault by new siege cannons of modern European armies. This revolutionary construction technique alternated curtain walls with bastion towers (initially rounded, but subsequently polygonal-shaped) based on a geometrical study of the trajectories of cannon balls. The combined mass of the bastions, thick stone walls and sloping earthen banks helped to resist the force of a heavy artillery barrage.

Come what may, the newly-designed Girifalco Fortress was never actually employed in battle. Then in 1766, with the advent of the Lorraine dynasty, it was finally disarmed and sold to the Community of Cortona which used it as a town prison.

Subsequently, after the demise of the Grand Duchy of Tuscany in 1860, it was ignominiously used as a stockade for timber and stone. However, during WWII it was destined to be the home of 250 children whose parents were exiled abroad, and as a strategic observation post for German radio operators, who were eventually kicked out to accommodate liberation troops of the allied forces.

Further restoration work was undertaken in 1959 and 1969, enabling visitors to view the keep and the internal courtyard, while reconstruction of the bastion of Santa Maria Nuova was concluded in 2010 with the installation of a service elevator to help improve accessibility for a variety of purposes.



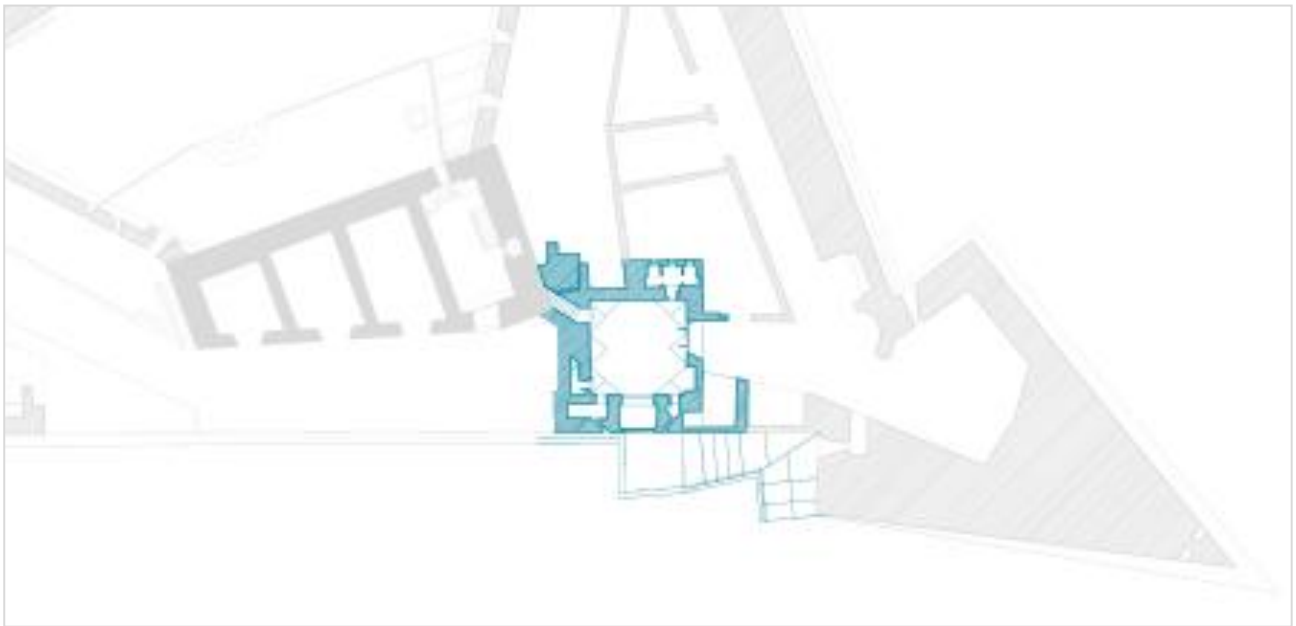
The spaces

The Girifalco Fortress is also called Medici Fortress because in 1561 was restored and modified by Grand Duke Cosimo I de 'Medici. This impressive and charming trapezoidal structure is bounded by walls with four corner bastions different in shape and size.

Inside the walls there is a large garden, the courtyard and the Captain's Palace, each one having fascinating and of great interest features.

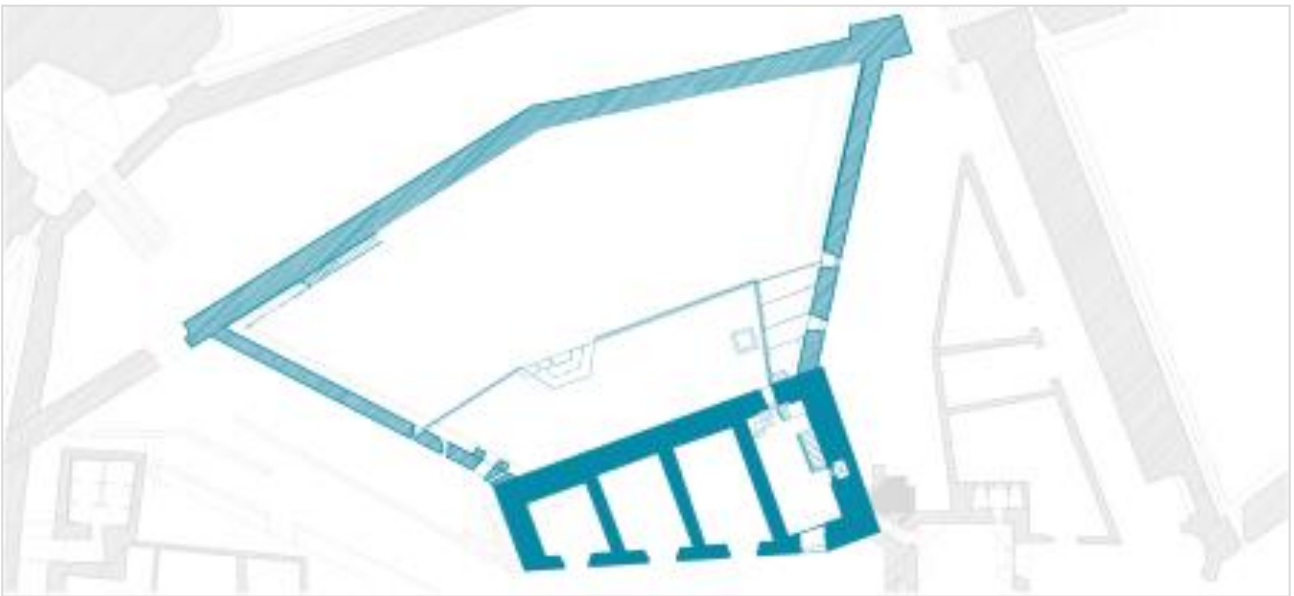
Entrance / Guardhouse

The guardhouse is of a square design laid out on two levels. The lower level, which is the main entrance to the fortress, features a low, vaulted, pavilion ceiling with lunettes and capitals of dressed stone. In the entrance wall you can still see the openings where the drawbridge mechanisms were lodged. On either side of the entrance are two sentry bunkers, strategically positioned for crossfire when under attack. Access to the upper floor was originally via a secret staircase, which still exists, while direct access to the keep is via a staircase that was restored in 1969. The upper level of the gatehouse, currently accessible from the external ramp, is partially collapsed and roofless.



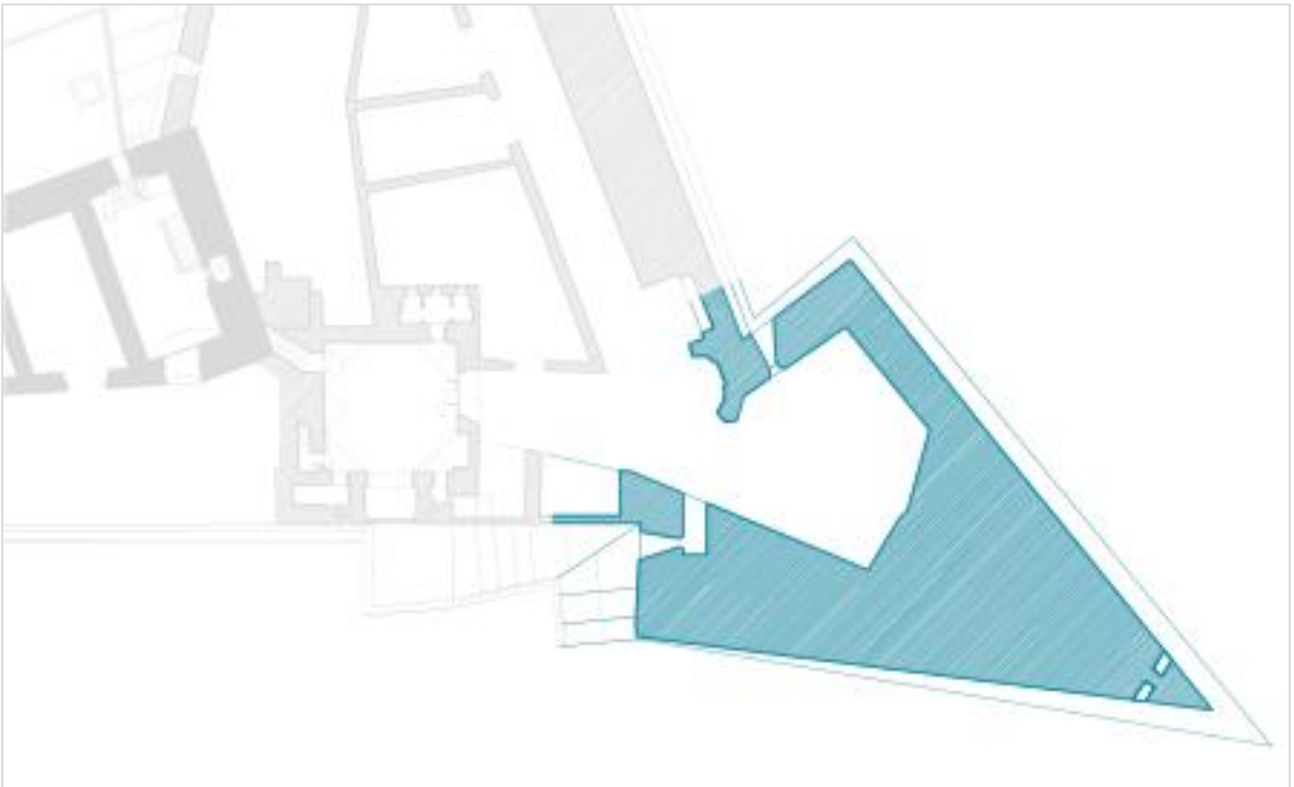
The Courtyard and the Keep

The keep is the oldest part of the fortress, and the facade which faces the courtyard is probably the only remaining trace of the original mediaeval construction. According to historical records, in 1527 the fortress was connected to the town perimeter wall via two stretches of walling which made the pentagonal shape of the courtyard. An adequate supply of water was provided by an underground storage tank located in the centre of the keep. The patrol path battlements are still accessible from the top floor of the keep, which affords a superb, panoramic view of the Chiana valley below. After the construction of the bastions in 1556, the keep became the barracks for the soldiers and the constable. You can still see traces of the roofing which once covered the barracks in the masonry of the courtyard walls, which were completed in 1624. The roof was demolished in 1776 due to serious damage caused by rainwater infiltration.



Bastion of Santa Margherita

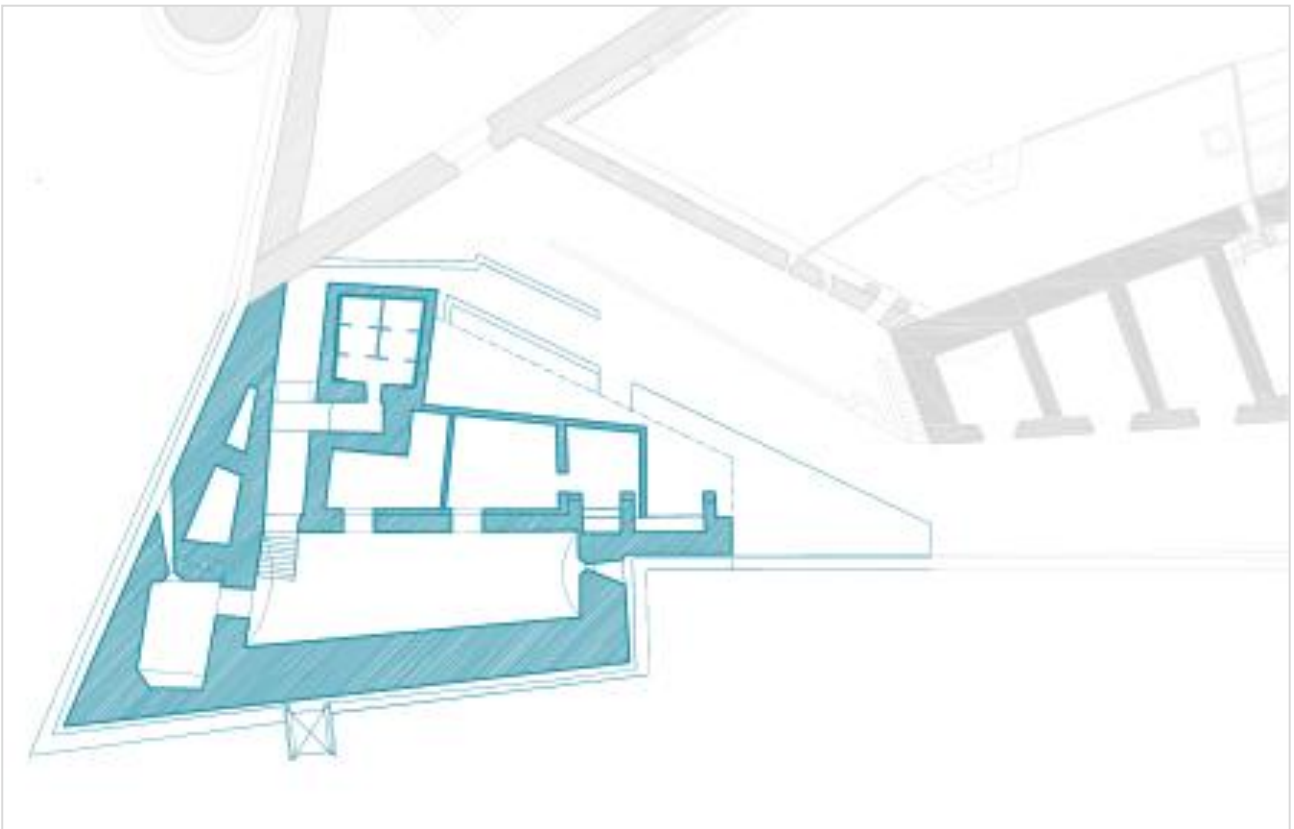
The bastion of Santa Margherita, facing south-west towards the sanctuary of the same name, is part of the 16th century reconstruction project that included the bastion of Santa Maria Nuova. Featuring a pentagonal design with vertical sides, it is the only one of the four bastions without a roof. However, some fragments remain that suggest it originally included some vaulted chambers that were never completed or have subsequently collapsed. On the side facing the town it is still possible to access the arrow slit which controlled entry to the fortress. The stepped ramp above was probably designed to give continuity to the patrol path battlements connecting the upper levels of the four bastions. Nowadays, the tip of the Santa Margherita bastion is an excellent vantage point for viewing the Chiana valley and Lake Trasimeno.



Bastion of Santa Maria Nuova

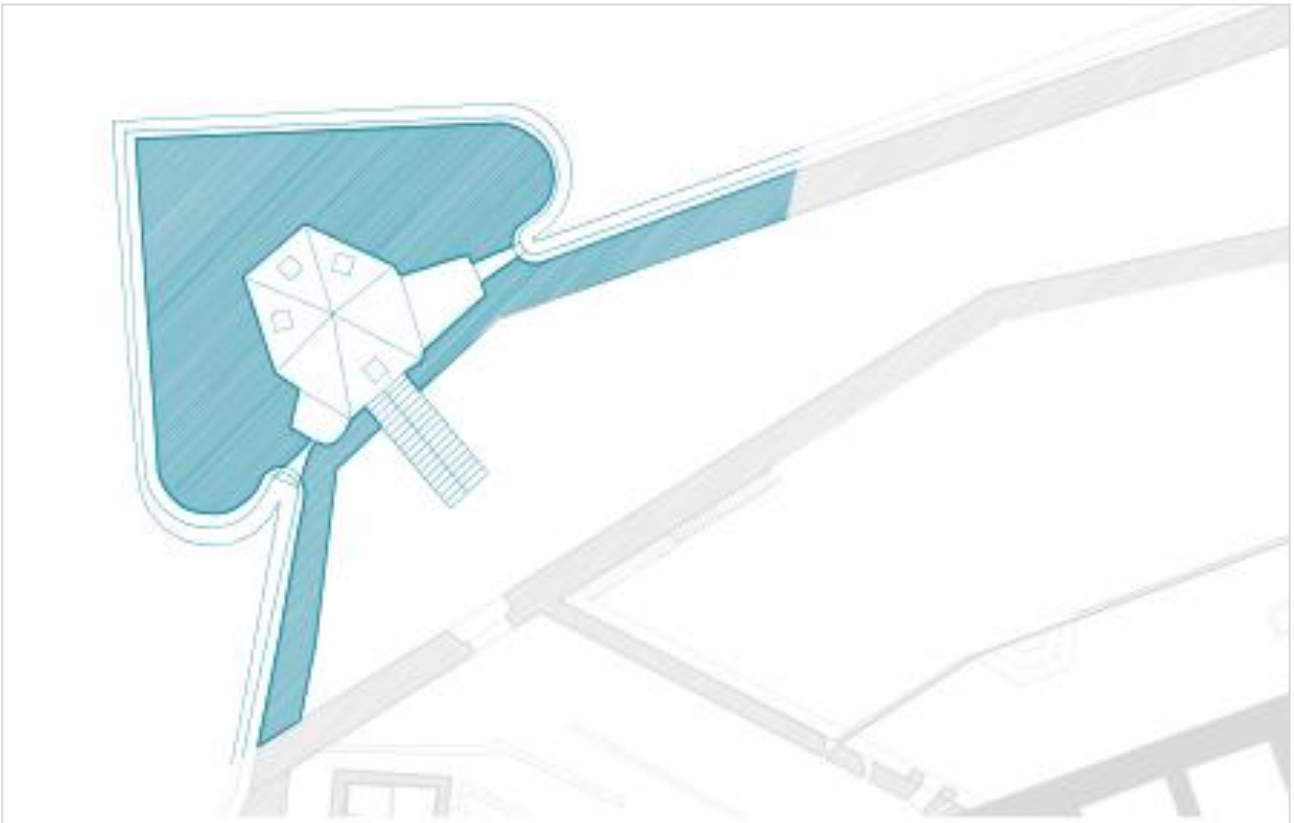
Facing north-west towards the church of the same name, the wedge-shaped bastion of Santa Maria Nuova features one side at right angles to the town perimeter wall and one flush with it. When construction work started in 1556 to improve the fortress defense system, part of the town wall was dismantled and rebuilt to incorporate the new bastion. Inside the bastion, near the entrance, you can still see a

2-metre thick stretch of the old town walls. The restoration of this bastion was completed in 2010 with the installation of an external service elevator, which was part of a general research and re-development project for the fortress, undertaken jointly by the Comune of Cortona, the Soprintendenza of Arezzo, the Florence University architectural faculty and the Monte dei Paschi di Siena Foundation.



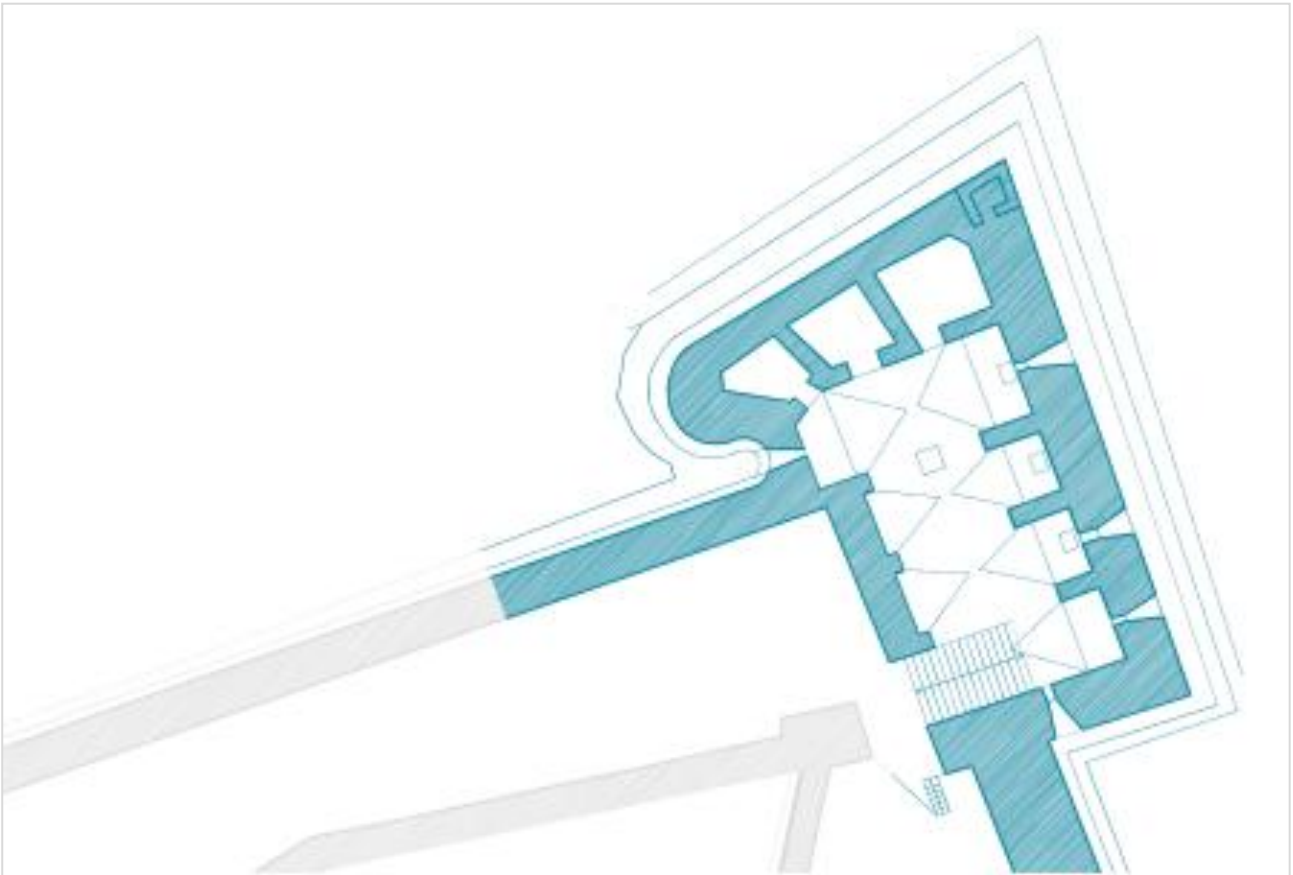
Bastion of Sant'Egidio

Looking north-east towards Mount Sant'Egidio, the bastion of the same name is shaped in profile like an 'ox-tongue' spearhead with two symmetrically curved sides. It has a single inner chamber of hexagonal design which could house two gunners for shooting at ground level. It was built at the same time as the bastion of San Giusto whose upper levels were connected via a rampart, still visible. A 'Ravelin' was built outside the bastion. This is a triangular shaped, earthworks embankment with walled sides to improve the defense system by deviating any perpendicular fire from an attacking army, thereby reducing the intensity of the onslaught. An emergency exit door, now walled in, allowed defenders to flee from the bastion towards the ravelin.



Bastion of San Giusto

The bastion of San Giusto is positioned just outside the perimeter of the town walls in order to defend the fortress from attackers coming from the south-east. It is noted for its asymmetrical design, having one side shaped like a lance and the other side straight, which then dovetails directly into the pre-existing town walls. The interior has a vaulted main room punctuated with arches and buttresses that encompass smaller, vaulted chambers. Outside, near the entrance to the bastion, you can still see an interruption in the town wall masonry where it was partially demolished in order to incorporate the new 16th century network of bastions. At the top, on the external corner of the courtyard walls, you can see where the new blocks of stone were dovetailed into the old masonry, while at the base is an embankment which was added to reinforce the reconstructed perimeter wall.



Texts and graphic material curated by Aura Gnerucci, Maria Teresa Idone, Dania Marzo

Elaboration of the workshop outcomes of interdisciplinary thesis on the topic of the Girifalco fortress, held at the Faculty of Architecture of Florence, coordinated by Profs. Giacomo Pirazzoli, Amedeo Belluzzi, Peter Matracchi.

Graphic design by Aleksander Masseroli Mazurkiewicz



2. LAPARELLIAN INTERVENTIONS TO THE GIRIFALCO FORTRESS

Aura Gnerucci, Maria Teresa Idone, Dania Marzo

Essa è d'una figura irregolarissima siccome ancora i di lei bastioni, perché si assoggettarono nel fabbricarla alle irregolarità del monte, ed hanno voluto da un altro canto profittare degli antichi recinti.

O. Warren, *Raccolta di piante delle principali città e fortezze del Gran Ducato di Toscana*, 1749

The following text is taken from the catalog of the exhibition "Francis Laparelli architect from Cortona in Malta" held in Cortona at the Palazzo Casali in 2009 (August 23 to October 31, catalog published by Edizioni Tiphys). Organized by the Etruscan, by the City and by the MAEC, the exhibition gathered, among others, the case study of the Fortress of Girifalco, Laboratory object at the Department of Architecture of the University of Florence. In this context prof.f.ri Giacomo Pirazzoli, Amedeo Belluzzi and Peter Matracchi were co-presenters of three claims relating to historical research, analysis and recovery of the article, discussed by the students successfully Aura Gnerucci, Maria Teresa idone, Dania March, authors of the text published here.

This is part of a series of complementary actions between teaching and research carried out by the Department of Architecture of Florence, among which worth mentioning: the residential workshops of 2007; The interdisciplinary research project SiSMUS - Site Specific Museums (www.sismus.org) - coordinated by prof.Pirazzoli with prof. Alessandra Lanciotti (Department of Law, University of Perugia) and prof.Guido Guerzoni (Bocconi University, Milan) - extended to the case study of Girifalco with the Laboratory of theses; the exhibition in Cortona and laparelliano conference in the Uffizi; The survey, the feasibility study and redevelopment project of the Bastion of Santa Maria Nuova, built by others.

The original core of the Cortonese fortress, made up of a keep and the courtyard, rises for four floors in height on angular bastions, enlarged in the sixteenth century: Sant'Egidio, facing north-east towards the mountain bearing its name, 'trunnion' lanceolate with two symmetrical concave flanks, relative to its main axis; San Giusto, with a concave flank and a straight one; Santa Margherita, towards the church of the Holy Patron; Santa Maria Nuova with one perpendicular side, almost a half bastion. In addition, an external ravelin is open to the north-east, between the ramparts of Sant'Egidio and San Giusto.

The site – hosting this *figura irregolarissima* by different builders – was surrounded by belted stonework in Etruscan times, the most obvious trace of the antique *Corito*, which extended far beyond the present although not localizable. It is likely that there had existed an arce or propugnaculum, linked to the cult of the dead since pre-Roman times.

The first documents that relate to the building of a strong and beautiful fortress⁶, date from the invasion of 1258, when *destructio fit Cortone ab Arretinis et ars edificatur*. For some "instruments" in the Reformagioni di Firenze, it is possible to hypothesise a pre-existing stronghold, the Gerfalco, ceded to Arezzo by the Bishop Ubertini as a reward for help in the conquest of the town. The fortress was built by the people from Arezzo for the defence of Cortona and in 1261 was in turn presa et svaligiata, until, in 1266, an agreement was reached between the two cities with the cancellation of the reciprocal damage.

During the rule of the Casalis, a raccomandigia signed by Uguccio Casali¹¹, did not stop him from selling Cortona together with its fortress to the Florentine Republic in January 1411.

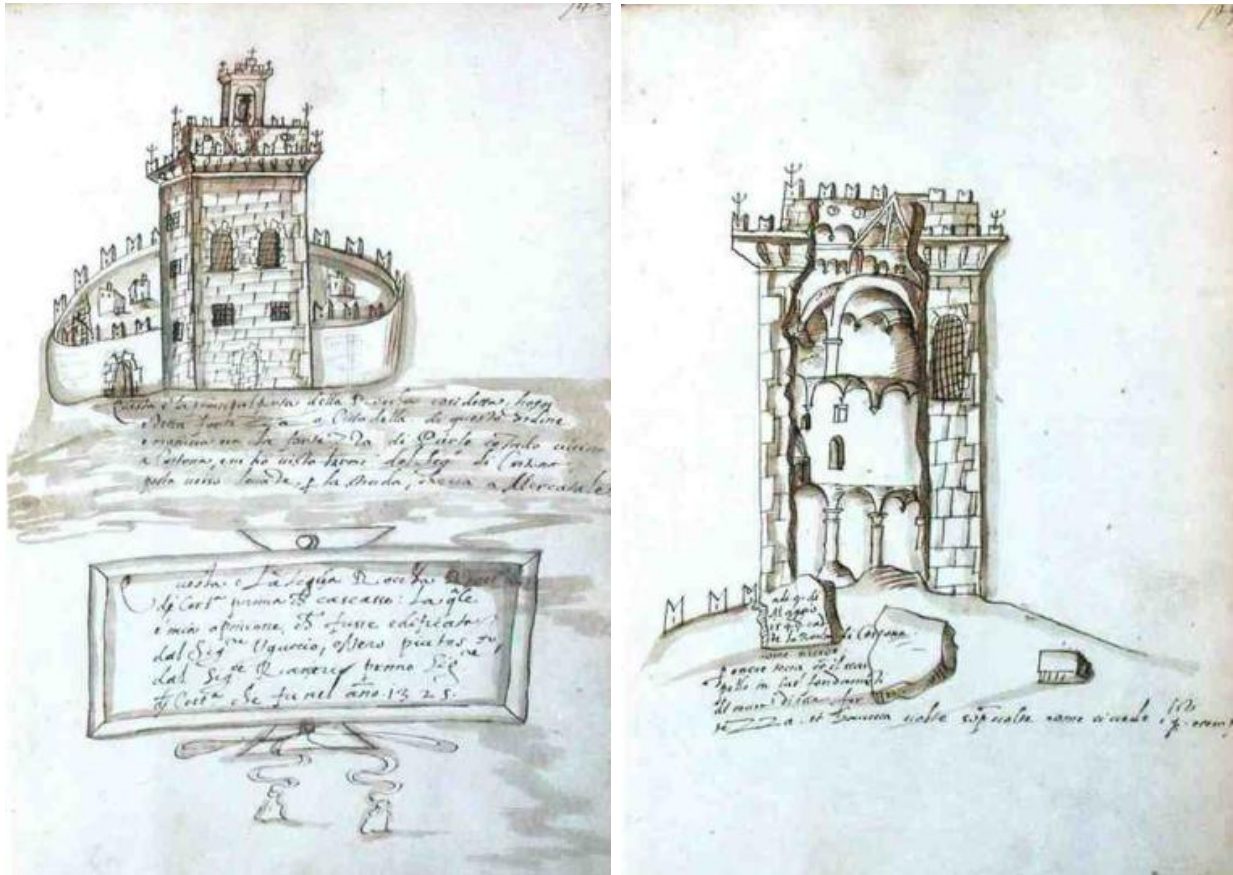
The fresco from the school of Luca Signorelli, datable to 1510-1515, from the Palazzo dei Priori describes, among the four saints protectors of Cortona, San Marco, who holds a model of the town, where the fortress seems devoid of the ramparts subsequent to the date of the painting; the walls appear to encircle a high crenellated tower, but it is not possible to distinguish whether there is a connection between the two structures.

Interventions in the first half of the Sixteenth Century

The analysis of available sources reveal that the Medician interventions, generally attributed to

the military commander and engineer Gabrio Serbelloni and to the Cortonese Francesco Laparelli, were complex workshops. They developed in stages and with the participation of other architects.

Among the changes to the stronghold before Cosimo, the Registry of the Old Town of Cortona shows a document dated 3 October 1521, in which the Captains of the Guelph Part of Florence destined half of the proceeds of sentencing of the court to repair the town walls.



According to Della Cella, still on the orders of Florence, in 1527 the towers were broken down together with the merlons of the town walls, except those of the stronghold. This occurred in conjunction with a massive militarization and *le mura che girano attorno alla fortezza [...] erano state rifatte e collegate colla cinta della città.*

A letter from Commissioner Iacopo Morelli to the Balìa in Florence¹⁶ the following year mentions two keeps under construction: [...] *parmi che di necessità bisogna alzare due torrioni che sono cominciati, perché stando così, tengano in gran pericolo la fortezza, e molto peggio che se non vi fussino. Quando le S.V. havessino mandato Giovanfrancesco da S. Gallo, come ne scripsi a quelle, lo farei venire in sin qui, e farei fare un disegno nel modo s'havessi ad far dicti torrioni, perché non veggio ce ne sia né disegno, né modello, né ordine alcuno [...].*

In 1529, Antonio Francesco delli Albizzi submitted to the Balìa Fiorentina an application to have at Cortona [...] *Michelagnolo o al mancho Amadio, acciò che qui si determini di fare qual cosa di buono con questa fortificazione. Il Commissario di Cortona ovvero Capitano con gran sollecitudine et diligentia fa fornire quel parapetto di muro di quella fortezza, et fa abbassare il Monte che sovrasta a quella, secondo il disegno che fu dato avanti che arrivassi là.* It is therefore possible that between 1528 and 1529 a *disegno* had been submitted, at least in relation to the mountain.

On the side facing the town it is likely that excavations had already been undertaken in 1549, because of the collapse of the ancient donjon described by Tommaso Braccioli in two sketches

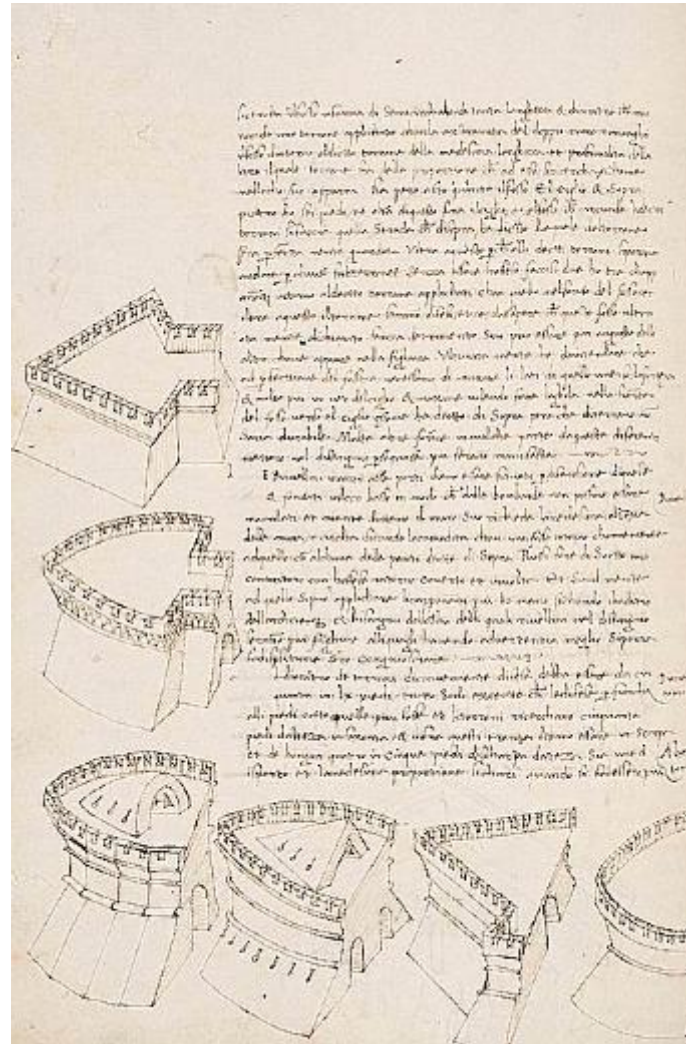
preserved in the Biblioteca Comunale of Cortona: the circular shape of the courtyard, given the synthetic nature of representation, could be symbolic.

The art of fortification in the sixteenth century

With the introduction of firearms, the turreted medieval walls against storming attacks failed, inadequate to deal with the blows of artillery and were gradually replaced by the front bastions, designed to defend against grazing or flanking. The design of the front, characterized by alternating screens and bastions, squares on which the artillery could move to dominate the area, comprehended the studies on firing trajectory, visual lines of Dürer's *Treatise*, and the initial ballistics theory by Niccolò Tartaglia, a geometric approach in which the rays of the tracking shot determined layout.

Although there was an evolutionary change in the shape of the bastion, from curvilinear to polygonal construction, it shows that both were still present together for several centuries. Examples are the round fortifications by Antonio il Vecchio and Giuliano da Sangallo, probably derived from medieval keeps; innovative studies and solutions proposed by Francesco di Giorgio Martini, also present at Cortona on the site of Santa Maria delle Grazie al Calcinaio, in the *Trattato di Architettura Ingegneria e Arte Militare* (1480-82); the contemporary designs of Leonardo da Vinci, who, although knowing the studies mentioned above, never developed pentagonal bastions.

The anticipation of the defensive line by adding advance corps, called ravelin or, because of their shape, *puntoni*, already attested to on the drawings of Francesco di Giorgio, deflected shots perpendicular to the screen, to reduce their intensity.



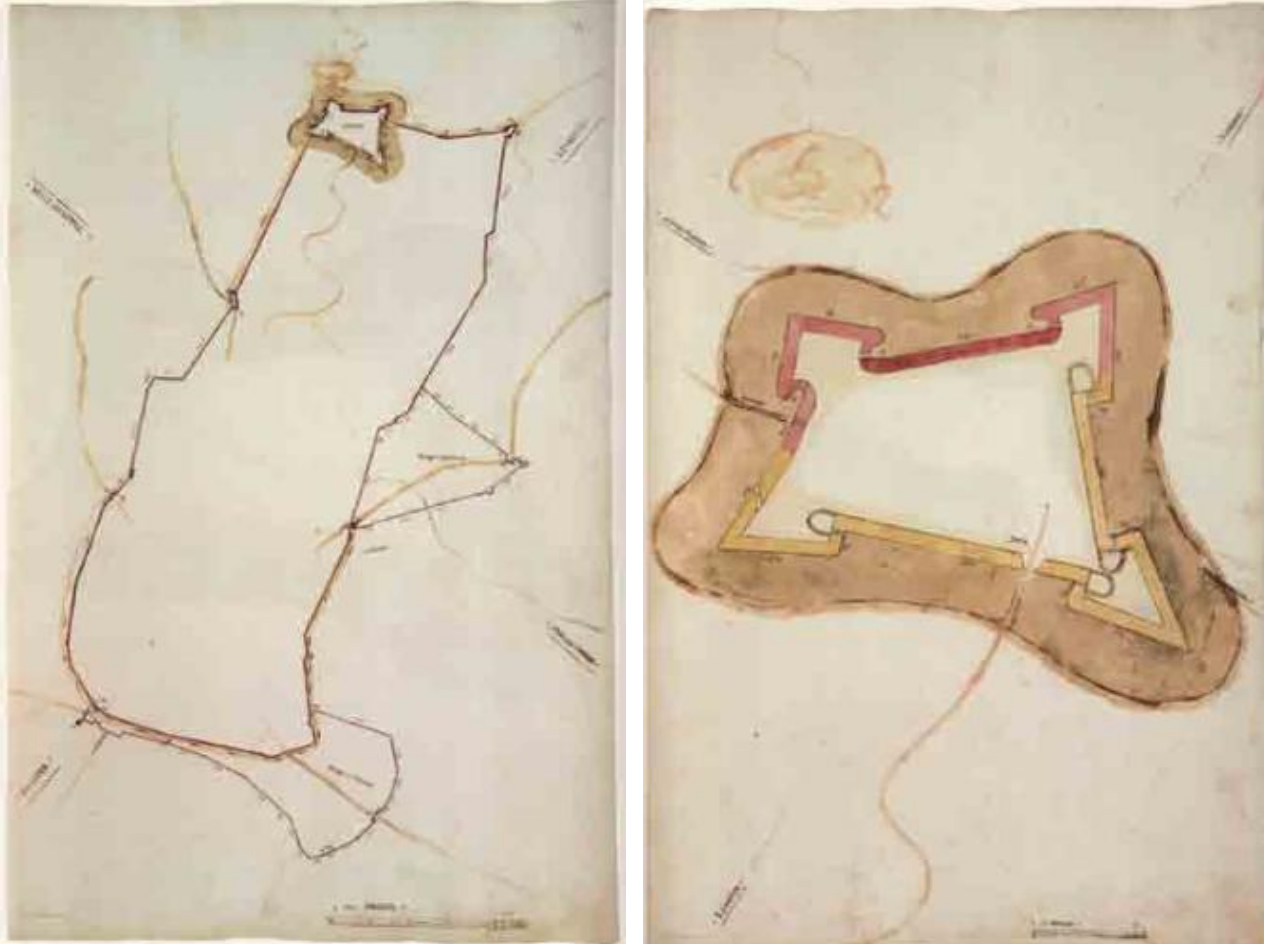
The intervention of Cosimo I de' Medici

With the advent of the Principality the design and construction of huge military works became part of a planned policy of conquest. Cosimo exercised direct control of military architects-engineers, personally chosen by him, specialists in the art of war but also skilled *mecanici*. Beginning with Giovan Battista Belluzzi³¹, engineers from the Venetian-Urbino school of Francesco Maria della Rovere, outsiders and less influenced by the logic of local power, were well-trained in the techniques in land fortification, able to respond more effectively to the needs of speed and cost required by Cosimo, compared to wooden decks still widely in use in Florence. As a result of the Medici expansion, the war of Siena (1554-55) urged a massive fortress in the towns of Valdichiana; Cortona, for its strategic location, was included in a program of military expansion since 1550.

At the National Central Library in Florence there is a collection of *Raccolta di piante di città e fortezze* recently attributed to Giovan Battista Belluzzi by Daniela Lamierini.

In paper 14, attributable to the years 1550-51³³, Sanmarino represents the walls of the town, which includes the *borgo* of San Domenico (south), of San Vincenzo (south-west) and the fortress. The last is displayed half in red (pre-existing) and half in yellow (interventions partially achieved or planned), a colour coding also used by Giovan Battista Belluzzi in other drawings in the collection. The representation, limited to the quadrilateral bastion, which was the object of the Medici interventions, does not make it possible to deduce the state of the fort there. Lamierini assumed that the touch of the brush at the major orographic fortified external circuit

(where the ravelin is), indicated a specific intention to act: according to the sources already mentioned, it is likely that in 1529 the plan was to level out this natural stronghold, far higher than the grazing fire of artillery, which could facilitate the enemy assault. In 1556 Gabrio Serbelloni proposed, on the contrary, the construction of a ravelin: [...] *la parte alta di dreto dal castillo che Vostra Eccellenza Illustrissima mi dise di farla levare, mi pare apposto la si lasa e se abraza con uno pontono guardando dali duoi baluardi restando dase fora dil foso per chè il castilo resta scoperto asaij et non domina quilli scoglij e questo pontono li discopira e giovava senza alchuno impedimento.*



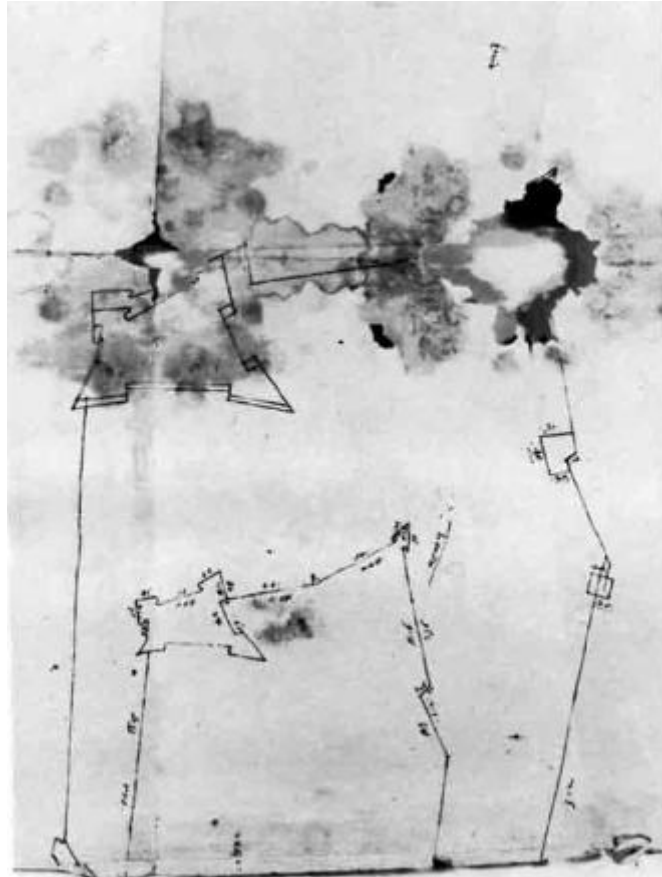
In February 1554 the engineer from Milan obtained command of an army in the siege of Siena and, two years later, the direction of the work of fortification of Cortona, through his cousin, the Marquis of Marignano. To Cosimo he represented the major person to report to on the level of progress. The heavy correspondence with the Duke, kept at the State Archives of Florence, documents his presence in Cortona from August 1556 to September 1557, outlining the key stages of the intervention and identifying other collaborators. Already in the initial investigation he was flanked by Bernardo Puccini, committed in those years to the fortification of Lucignano. Describing the town as *debolissima* and in need of assistance, Serbelloni remarked that the Duke had wanted to strengthen it for five years: a statement that would correspond with the timing of drawings of Sanmarino. In particular, [...] *il castello sta malissimo nela forma si trova e tanto più senza fossa e dentro senza alchuno parapeto né terapienato e mancali le volte dile case mate a duoi baluardi.* It is clear therefore that at least two bulwarks, Sant'Egidio and San Giusto, had already been built, perhaps sketched at least 25 years before, if these are identified as the *keeps* of the document of 1528.

On August 9, with this first letter, Gabrio Serbelloni sent to the Secretary Bartolomeo Concini a *pianta di questa città con una memoria di quanto bisognaria ed è molto necessario.* An anonymous *Notta o memoria di quello saria daffar ala città di Cortona*, attributable to Serbelloni

if we compare them calligraphically, in fact recalls a plan *facta da uno gentilomo di questa città*, identified in a letter of 16 August: *Avendo e messer Bernardo e io instruito bene dilopera si harà a comenzare messer Francesco Laparelo gentilomo di questa città molto inteligente e affectionato servitore di Vostra Eccellenza Illustrissima il quale in suo absentia et mia saprà metere a effecto questa opera con diligentia.*

Filippo De'Venuti emphasizes the relationship of mutual respect and friendship between the two military engineers by saying that, having been made [...] *generale dell'Artiglieria, a verun'altro volle lasciare l'esecuzione de' suoi ordini, che al Laparelli, in casa del quale abitava, promettendogli che quando se gliene fosse aperta la strada, avreb'egli procurato ogni suo avanzamento, e vantaggio.*

The family archives keep a plan by the Cortonese architect of urban fortifications dated by Paolo Marconi to around 1554: later than that of Sanmarino, it may be interpreted as a proper survey. However, the two different configurations of the south-eastern part (with and without the bulwark below the orchards of Santa Margherita), and the presence of the measures of only the outside ramparts of the fortress, do not exclude the possibility of a projected design, where the unlisted ramparts constitute a hypothesis not yet fully developed. There is insufficient evidence to determine whether this is actually the drawing mentioned by Gabrio Serbelloni.



On the same date of 16 August 1556: : [...] *il Puzino è stato qua et [...] o facto designar qua di sua mano sopra una pianta, quale si lasara qua sopra lopera, tutto quanto harremo confrontato*

The presence of Bernardo Puccini on the Cortonese site is attested by a letter from his hand. Probably due to differences between the proposals of the two designers for the *borgo San Domenico*, the work at San Vincenzo was the first to be launched, *duoi mezi baluardi che l'uno difendese la cortina dilaltro [...] quasi bassi al pede de la muraglia*. The date displayed is 24 August, meanwhile, [...] *a la fortezza non se li è per hanco dato alcuno principio[...]*.

The work of the Girifalco fortress began with *duoi piconieri, quali alenano a consumare quello muro di dentro vecio*, perhaps the urban stretch of the wall of 1527, which was connected to the

donjon, which *si troa durissimo, e con gran fatica fano poco lavoro. [...] al pontone di dreto dal castello non se li e per ancho facto altro salvo che se disegnato e non sara piu di quattrocento quadrati di lavoro di tutto. [...] Li duoi baluardi e la cortina di dreto dal Castello verso il monte non sono trapienati dala volta in su, ma è complito la metà del muro di dentro, ma sollo la metà dela parte di forra, credo per mettersi in sicuro e per fare poi la parte di dentro con comoditate e per che questa materia deli muri che si ruinino di dentro dal castello bisogna livarla da dove casca [...].*

We have already seen how Serbelloni had challenged the lowering of *parte alta di dreto dal castillo*, to rather embrace with a stucture outside the moat. Although the ravelin registers a maximum spread between the end of the sixteenth century and the beginning of the seventeenth century, Bernardo Puccini in his Lucignano worksite already mentioned a similar structure in 1556, and considering the initial collaboration of the Cortonese architect, one can plausibly believe the *pontone*, or ravelin, contemporary with the ramparts of San Giusto and Sant'Egidio.

The work had to proceed in the manner described, at least until 22 November 1556, when the *pontone* was stopped for lack of mortar, but one of the bulwarks was embanked enough to be ready to accommodate artillery for the winter. In front of the fortress, they began to dig the trench and to raise the counterscarp, recuperating the material from the demolition. With the arrival of winter, the winds and weather to hinder the worksite, Serbelloni, in poor health, requested a license to return to Florence.

In his absence, the supervision of the work passed to Giovanni Camerini, as emerged from correspondence of the following July. On his return, Serbelloni reported good progress of the work on the town walls and ramparts; at the fortress, he was extremely critical of the work of his substitute, in the first place about the ditch, because [...] *Vostra Eccellenza Illustrissima comandò si atendesse a cavare li fossi in cierco a essa forteza e tanto piu a quello denanti, il qual ne a gran bisogno, a quali non si è facto altro dapoi mi parti, havendoli il Camarino voltati [le maestranze] a cavar il fosso in cierco a quello pontono che si facto di fora dila forteza di dreto [...] la qual cosa [...] saria come volerli levare il bono sito a che la forteza li a dato la natura [...] and secondly to the location of the relief port, already built and at present walled-up, which allowed the escape from the trunnion of Sant'Egidio to the ravelin: trovo hancora che [il Camerini] a rimoso l'ordine già più di fu dato per Vostra Eccellenza Illustrissima sopra il fare la porta del soccorso nel oregione dil baluardo di dreto a mandrita, aprobato per il Signor Ciapino che da quanti è stato sopra questo loco. [...] Questa porta del soccorso quale hora li è, è in bono loco nè s'è cercato di removerla per altro che per la incomodità che se disende duodici scalini con una scala [...].*

On 30 September 1557, after reporting on the passage of the army and a regular progress report, Serbelloni observed that *è cesato in tutto il bisogno del mio stare qua* and he was about to leave, perhaps leaving the site directly to Laparelli .

Despite initial differences, Giovanni Camerini again worked on the fortification of Girifalco and probably completed the work. In a *Memoriale* of 1568, the Superintendent Giovanbattista Gianfigliuzzi requested the direct intervention of Duke Cosimo:

Alla fortezza di Cortona s'harebbe necessario far il ponte levatoio et le guardiole per poterla invero domandar fortezza. [...] Ma è necessario la volontà di Vostra Eccellenza Illustrissima et il disegno et presentia di Mastro Giovanni Camerini, et non solo per questo ma per quello anchora che diconno si lavora ne' fossi di detto luogo.



Surveys and studies of the artefact

The topographic surveys (April 2007, April 2008) have shown significant alignments between two sides of the courtyard and the urban ring and confirms that the fortress was connected to it. The part belonging to the town walls, about two meters thick, shows through some breaches the dry ashlar for the entire depth. The wall of the keep, in freestone with square ashlar bigger than the present rows of stone, homogeneous and installed using regular rows with very thin joints of lime, is dated to approximately the thirteenth to fourteenth century and is probably the oldest part of the fortress. This was not coeval with the north and south sides of the courtyard and this is clearly visible from the unlinked toothing. The linking arms, approximately one meter thick, made of freestone with roughly square ashlar, arranged in horizontal rows of variable size, and with frequent inserts of stone and brick, likely date to the sixteenth century: according to documentary sources, the donjon was in fact connected to the walls of the town in 1527.

The interruption of the walls for the insertion of the bulwarks is resolved in correspondence with the ramparts of San Giusto and Santa Maria Nuova. Coming from the ramparts of San Giorgio, outside the fort in a southerly direction, the walls have a reduced thickness in the vicinity of the bastion of San Giusto, where a loophole was opened to avoid the steep path to the convent of Santa Margherita for the transportation of construction materials. This gate was still open in 1624, when the engineer Gabriello Ughi, in his report on the fortifications of Cortona, reported that [...] *è stante il bisogno, avanti ad ogni altro lavoro rifar il pezzo di muraglia della città che attacca con la fortezza il qual era rovinato e vi si è lassato una porta con sue imposte e serrature, per dove entrano i materiali che servono per i lavori che si fanno dentro alla detta fortezza, che è di gran comodità e molto risparmio, rispetto all'essere quel sito assai ripido e di lungo circuito nell'aver a entrare della città [...]*.



The perimeter walls of the courtyard, in front of the entrance to the bastion of San Giusto, show on the top the unstitcing of the ashlar, the set of which is visible. In front of them, there is a short stretch of the same old wall surfaces from the high square of the bastion; the texture of its walls is perfectly comparable and the thickness, incorporated into the wall *a sacco* which makes up the side of the rampart, probably contributed to reinforcing the corner.

In letters to Cosimo I, Serbelloni clearly described (1556-1557) how the walls *veghe* were to be lowered by pikemen and sappers: [...] *saria al meno di comandare ogni giorni uno numero di guastatori che lavorasero a fare li fossi e terapienasero dentro e basasero quelli muri di dentro, azioché si andase asetando l'opera.*

[...] *e fra tanto si farà venire li soliti lavoratori e maestri, quali atendarano a ruinar la muraglia vecchia quando non saranno molestati da venti.*

It was probably here that Francesco Laparelli experimented with this technique, often mentioned in his manuscript about the fortification of the town of Malta, where he states that *che [...] tutto il principal fondamento e bisogno, ora che si ha li dinari, è di guastatori, i quali sento dire che non si trovano. Et per questo dico che lo Francesco Laparelli mi obbligherò a condor cinquecento guastatori a uno delli tre lochi che si diranno, per portarli a Malta [...].*

Reclaimed stones were regularly re-used in new wall portions according to the practice of the site and consolidated in accordance with direct orders of Cosimo I. [...] *Mi è piaciuto molto la resolutione che Vostra Eccellenza Illustrissima apresso che si fornisca di murare li duoi baluardi e cortina de dreto ala fortezza e terepiarli da la ruine de muri che se disfano quali son contigue a l'opera.*

Similarly, within the bastion of Santa Maria Nuova a stretch of ancient wall had been re-used to stress two areas and strengthen the tip: the alignment and thickness of about two meters confirm that this tract belonged inside the town layout.

Both the wall for access to the vaulted hall of the bastion of San Giusto, and also the internal wall in Santa Maria Nuova are structured with a series of arches on pillars, buffered in stone. In Santa Maria Nuova the collapses half-reveal the embankment behind. The texture of the exterior screening wall, which was entrusted with the primary defensive role, was different. Inside the bastion of San Giusto, it can be assumed that the perpendicular *septum* to the screening wall may be protracted in depth: the absence of tothing declares the masonry of the base as a simple tamponage, set on discharging arches. Through them you can detect the thickness of the first screen and, in three cases, the presence of tanks below the bottom wall of which coincides, in position and format, with the masonry that, just above, terminates in the deep discharging arch. Taking shape is the hypothesis of a mixed technique, with double screen walls filled with earth, to absorb the powerful blows of artillery and at the same time save on time and costs for stone and mortar.

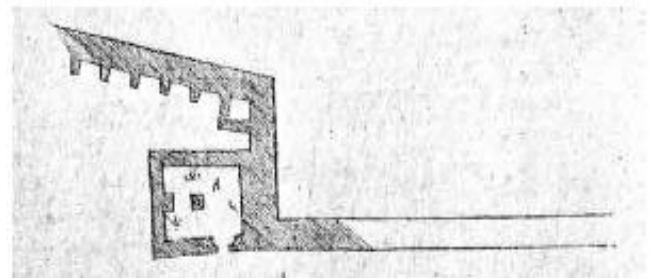
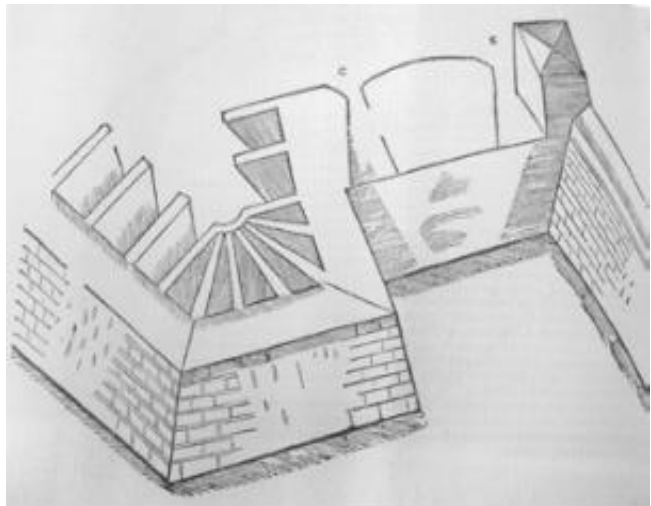
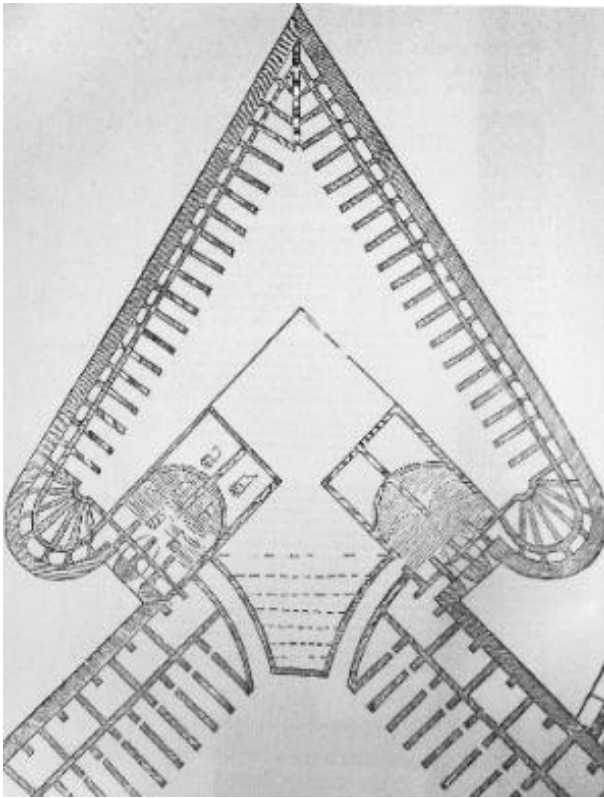
For the exterior screening wall, one can assume a minimum thickness at least equal to the parapet of the high square of the bastions, set to "*redendone*", which connected the entire bastioned circuit giving unity to the system.

The military treatise helps to shed light on this hypothesis. In *Libro de Fortificazioni, Assedij et difese de Piazze*, Sanmarino included drawings of screen walls made rigid by perpendicular and vaulted *septa*, building techniques exemplified by Francesco Laparelli in his *lungo trattato, intercalato da disegni di architettura militare*, and [...] *il modo di costruire le nuove città, legate o meno alle fortezze antiche, [...] e come si costruisce su vecchi ruderi.*

Comparable with the Cortonese ramparts is also the treatise *Della fortificatione delle città* in which Girolamo Maggi recommended *di fabbricare i contrafforti talmente, che dove son più vicini alla cortina, siano più grossi, a fine che il riempimento del terreno sia alquanto più largo di dietro che davanti, e non possa cascar nel fosso, quando gli sia tolto l'appoggio della cortina. Chi volesse che la fabbrica fusse più gagliarda, potria fare un'altra cortina sottile, lontana dalla prima due braccia, riempiendo lo spatij di mezzo con creta ben battuta, e questo acciò il terrapieno non sforzi la prima, e le palle dell'Artiglieria che le passeranno facilmente, vengano dentro a questa creta a perdere il loro impeto. Quali sebene col batter lungamente, consumeranno questa prima cortina, non seguirà però l'inconveniente del cascare il terreno nel fosso così liberamente, come se non ci fusse l'altro muro benchè sottile. Molto più utile ancora saria tal cortina, facendo spessi archi da un contrafforte a l'altro, e riempiendo gli spatij di quelli con creta [...].*

Excavations in progress at the bastion of Santa Maria Nuova, the restoration project of which is under implementation, have brought to light the inner screen wall which closes out the great

barrel-vaulted hall, and the external, on which the parapet is imposed, connected by the wall *septa*: the interstices are filled with earth and rubble. A predominant presence of earth rather than masonry emerges also in coverage, the archway was reduced to a minimum thickness, but acquired a considerable resistance due to the earth which covered it, completing the task of dampening the blows of weapons fire in an optimal way.



After the Medici interventions

For the young Francesco Laparelli the site of the Cortona fortress was the chance to experience these building techniques, flanked by Gabrio Serbelloni, a character already prominent on the military scene: a valuable partnership that would continue throughout his life.

When, in 1559, Pius IV, brother of the Marquis of Marignano, was elected Pope, Serbelloni benefited from this kinship by obtaining the post of Captain General of the Papal Guard, Knight of Malta and the Prior of Hungary. This mandate led to the appointment of Laparelli as Captain. He was assigned a company of 200 men to guard Civitavecchia, where he directed work on the fortification of the walls and the port. In 1560 the same Pope Pius IV entrusted him with the fortification of the Borgo Vaticano and Castel Sant'Angelo. Regarding his collaboration on the site of the dome of San Pietro, the biography of Filippo de' Venuti emphasizes his *honesty* and rigor as architect, whom Michelangelo wanted to use as a substitute *perché esattamente eseguisse, senza fare il Dottore, le sue idee e i suoi studiati disegni*. The culmination of the collaboration was an inspection of Roman papal fortifications, of which there remains an autograph book including drawings. It was always at the suggestion of Gabrio Serbelloni, and with the consent of Cosimo I, that when his term of office ended, Laparelli was sent by Pius IV to assist the Grand Master Parisot de La Valette in the design of new fortifications of Malta, which show the structure of the capital city

After the closure of the Medici site, the seventeenth-century documents relating to the fortress of Cortona predominantly show news of quarrels with the monastery below, like the usurpation

by the lord of the castle concerning *un pezzo di terreno sodo [...] detto il Prato di Santa Margarita*, on which the State Archives of Florence keeps an overview.

In the same find, a letter of 1655 contains the request of the community of Cortona to raise the bell-tower of the church of Santa Margherita, authorized by engineer Annibale Cecchi, which *non può esser di danno che tutta l'altezza di esso non supera quella delle mura della fortezza e poco può dominarla*. In the attached view, where the ramparts facing the town do not differ substantially from the present, except the integrity of the parapet of Santa Margarita which was evidently compromised by subsequent collapses, the circular structure of the keep is rather surprising: on the contrary, a conformation similar to the present one or very close to the previous plan of 1612 is likely.

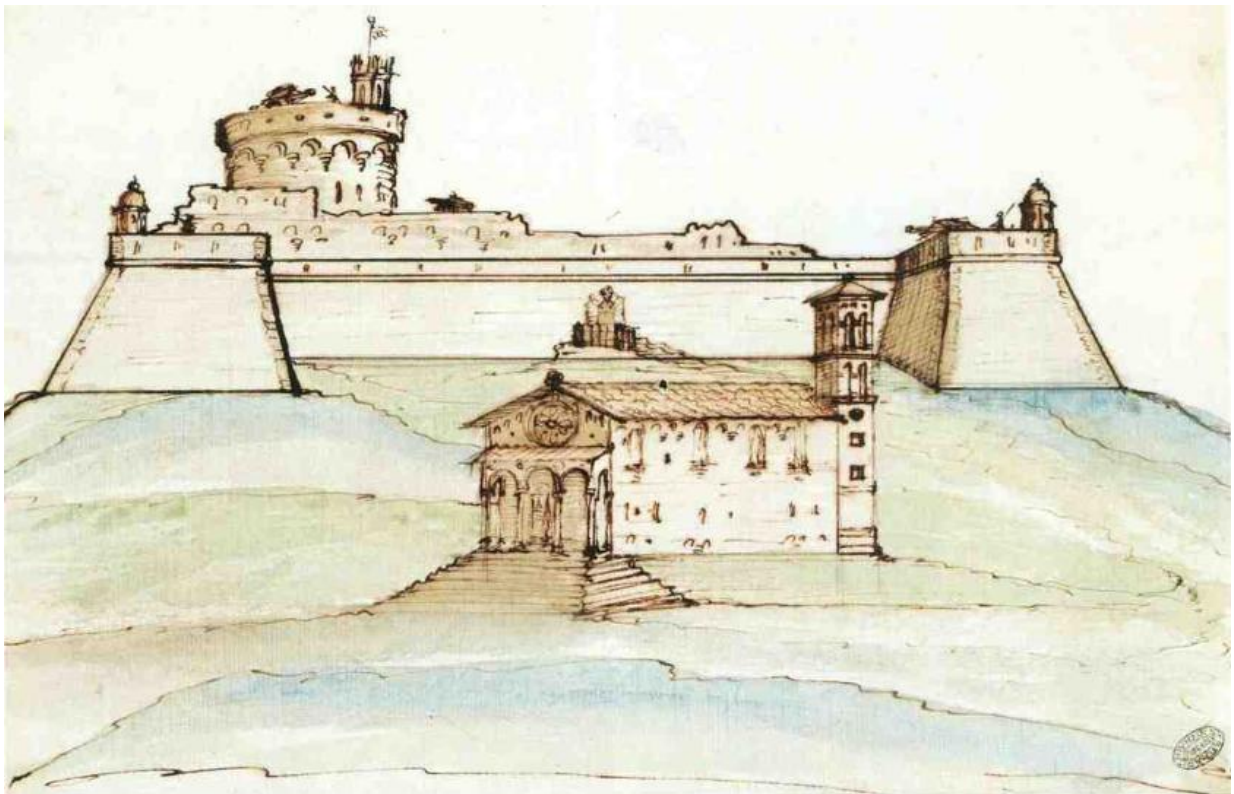
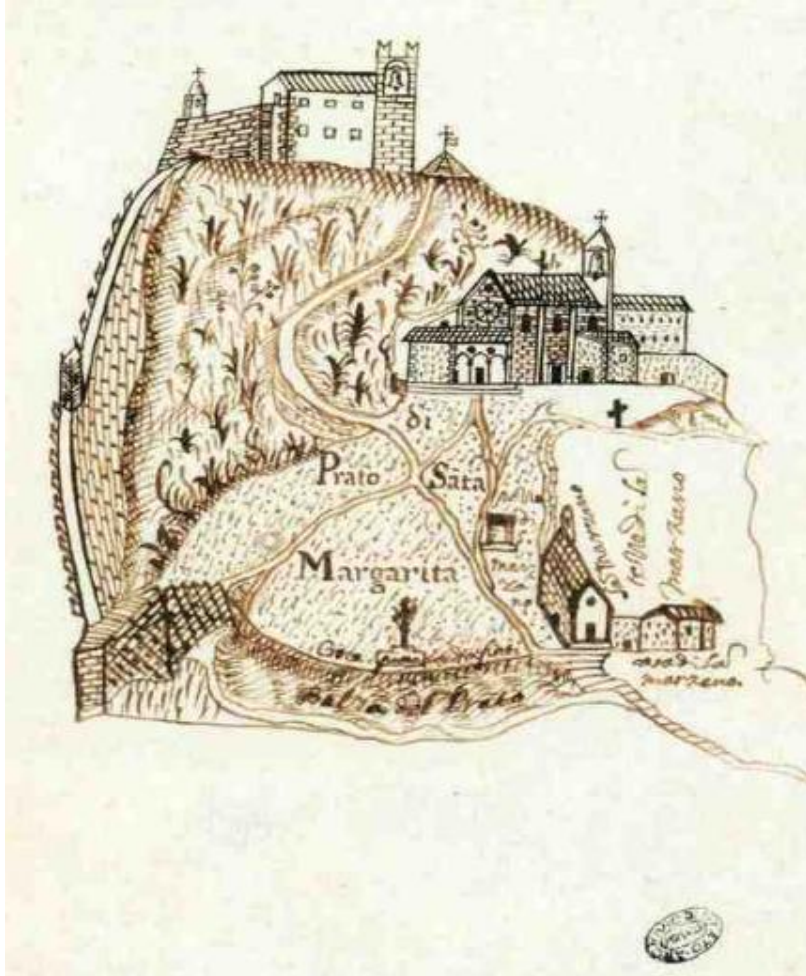
Further clues on the keep are provided by the above-mentioned report of engineer Gabriello Ughi, sent to Cortona in 1624: besides the need to close the breaches in the walls adjacent to the bastions, the fort was in need *di molti rimedi*:

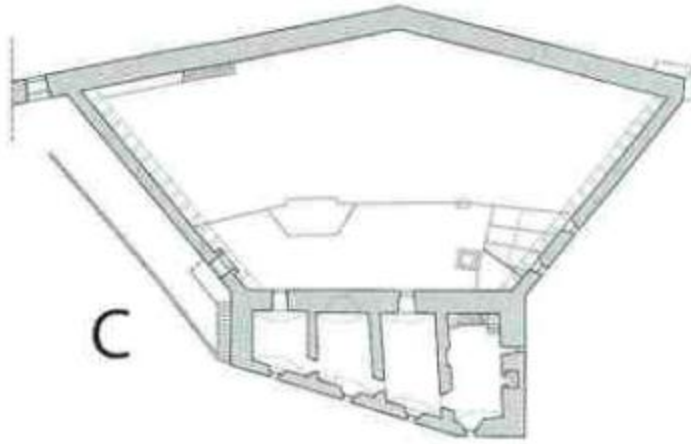
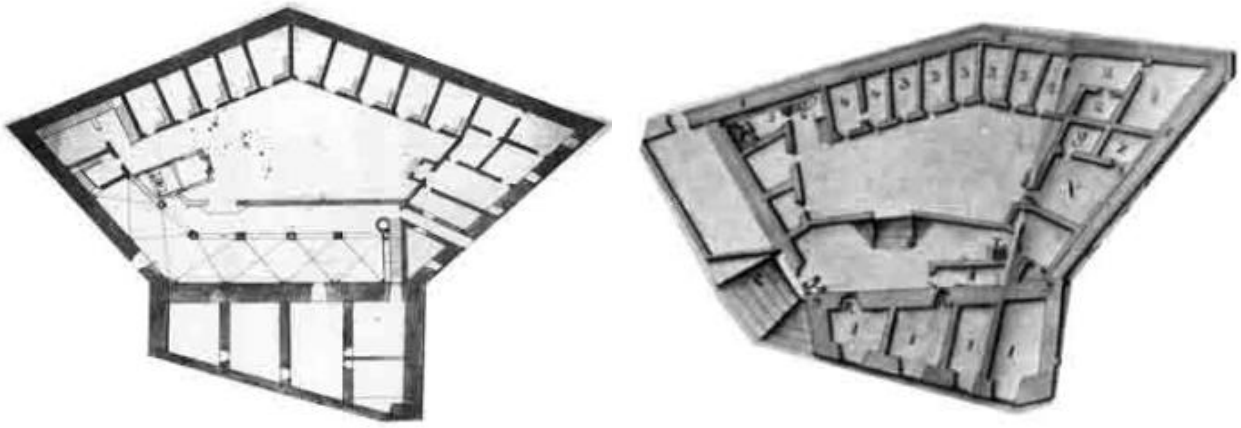
Nel Cortile della medesima Rocca s'è giudicato esservi necessario farvi una loggia bassa per tenervi l'artiglieria al coperto, e disopra cavarne stanze per grani, legnami, materiali et altre munizioni grosse che si deve ordinariamente tener nelle fortezze: et perché con detta loggia si leverà la Cappella che v'è di presente, s'è disegnato di rifarla in testa al detto Cortile.

A *disegno di fortezza* conserved in *Miscellanea Medicea* stored in the State Archives of Florence, anonymous and undated, displays the *caserme* of the soldiers actually present in the courtyard until at least 1776, and, right next to the donjon, a *loggia* with six bays, on square pillars. The access and openings along the walls are exactly those which are still visible today, while the presence of the *loggia* effectively distanced the chapel from the keep. In light of these considerations, we can identify the design cited by Gabriello Ughi in this paper, or a copy thereof. Failure to realise the *loggia* and the subsequent maintenance of the chapel in its original location, in favour of more urgent work, are attested to in the subsequent Ughi report.

In the second half of the seventeenth century the technicians responsible for visits, not just military engineers, were intended to look closely at the identification of only strictly required maintenance. The case of Ferdinand Tacca, sculptor of the Grand Duke, is emblematic. His 1667 report noted that: *[...] li marciapiedi del recinto, quali con volticciolle sopra beccatelli sono superiore alli tetti de magazzini, quartieri e altre stanze, et a quelli anco del signor castellano per haver imbevuto e incorporato l'acqua, penetra di sotto per la muraglia o lungo essa in tutte le suddette stanze e infradicia le muri, tetti e palchi [...]*.

Given these problems, we understand the subsequent decision *di finir di rovesciar le caserme che non sono suscettibili di rifacimento* when, in 1776, the Priori and the Gonfalonieri asked Pietro Leopoldo *di concedere alla Comunità di Cortona la Fortezza*. Following the passage of the Grand Duke to the House of Lorraine, the operations of disarmament (1743-44) started: *furono levato sei Cannoni di Bronzo di diversi calibri, quali furono trasportati a Firenze, e come altri dicono in Arezzo*. Thus the fortress, *vuota, e serrata di fuori con chiavistello*, was destined to a gradual deterioration.





3. PETER LEOPOLD'S REFORMS



The history of Cortona and the Girifalco Fortress intertwines with Peter Leopold's one when, in 1776, this enlightened ruler - belonging to the Lorraine family - granted **the Girifalco Fortress** to Cortona. This decision was made within a wider framework of important reforms which started the reorganization of public administration, in accordance with the decentralization of local authority.

The **Lorraine family** ruled the **Grand Duchy of Tuscany** from **1737** – the year of the death of Gian Gastone de' Medici, the last descendant of the family - to 1860, when the Grand Duchy was annexed to the nascent Kingdom of Italy.

The history of the Lorraine family (which has **French origins** and comes from the French region of the same name) had been linked to the history of Tuscany since **1589**, when **Ferdinando I de' Medici** married **Christina of Lorraine**, daughter of Charles III, Duke of Lorraine.

In **1737**, when Gian Gastone de' Medici died without any heir, the Lorraine family came to power through **Francis Stephen of Lorraine**, also known as Francis II. He begrudgingly accepted the title of Grand Duke, ruling Tuscany from Vienna. He came and visited Florence for only three months.

When he died in **1765**, Francis was succeeded by his second-born **Peter Leopold**, who distinguished himself by his farsightedness; unlike his father, he promptly moved to **Florence**, where he set an example of Enlightenment rule.

Peter Leopold, born in 1747, became the new Grand Duke at the early age of eighteen. From the beginning he proved himself to be very zealous towards his task. Once settled in Florence, he started a large-scale programme of modern reforms. History has it that as he arrived in Florence he received a number of gifts from the local nobles, gifts that he promptly destined to the construction of an aqueduct.

Despite being tied to the Austrian empire for dynastic reasons and political-strategic interests, he primarily worked in order to make the Grand Duchy autonomous from Vienna. He soon set about implementing a programme of reforms based on the principles of the Enlightenment. These reforms affected the legal, economic, religious and other spheres.

His administration (1765-1790) was marked by **major reforms** which made Tuscany a leading example across Europe.

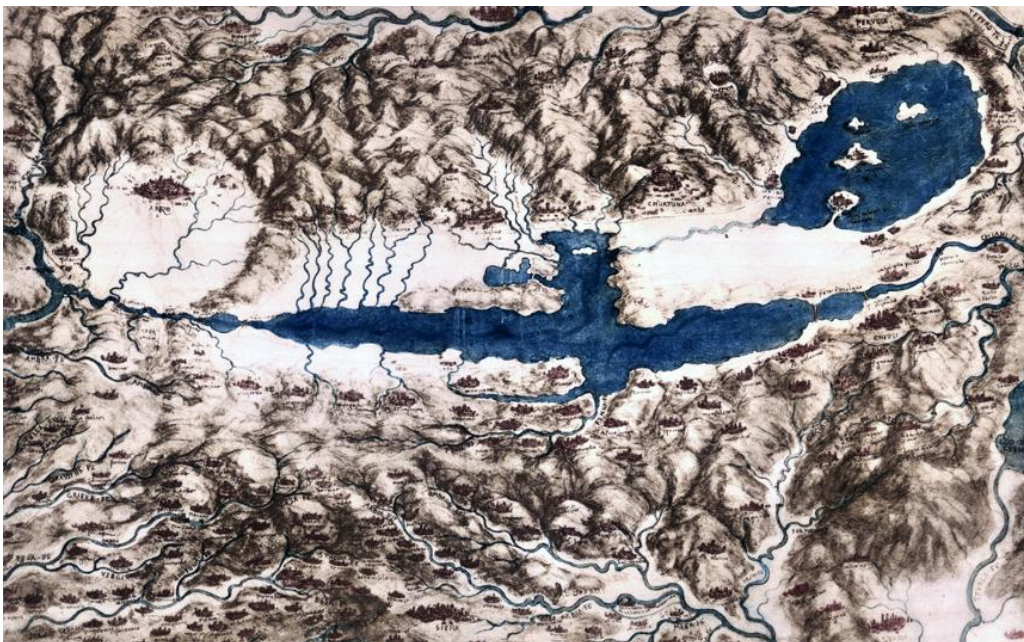
Peter Leopold surrounded himself with capable collaborators, such as the Florentine statesman Pompeo Neri, and he worked to achieve two objectives: on one hand, implementing measures of "good governance" to improve the efficiency of the State; on the other hand, opposing the privileges of aristocracy and clergy, introducing principles of justice in the State.

Among his most significant reforms we have:

- **Abolition of death penalty and torture.** Following the principles theorised by Cesare Beccaria on his treatise *Dei delitti e delle pene* (*On crimes and punishments*), on November 30th 1786 Peter Leopold promulgated a new criminal code called *Riforma criminale toscana* o *Leopoldina* (Reform of criminal law in Tuscany), which abolished the crime of lèse-majesté, the confiscation of goods, and above all banned death penalty and torture;
- Publication of the state budget. The reorganization of public administration, in accordance with the decentralization of local authority (making elective the Mayor and the municipal councilors). Finally, he revamped the **taxation system** to make citizens equals;
- **Abolition of ancient and well-established feudal privileges**, such as the majorat (which gave the right of succession to the oldest son only); abolition of tax immunity favorable to the aristocracy, and the possibility for the bourgeoisie to have access to the local public charges, trying this way to renew the ruling class;
- **Drainage and reclamation** of the marshes in Maremma and **Valdichiana**; at that time, this measure was really revolutionary, and it gave boost to agriculture and trade by adopting a liberal system and promoting the construction of a modern housing system and traffic routes;
- New relations between State and Church which included: abolition of the Inquisition and expulsion of the Jesuits, **suppression of monasteries** religious orders and institutions, which he greatly reduced in number; he also alienated their chattels and real estates. The new acquired **housing stock** allowed the creation of new hospitals, hospices, schools, institutes, and universities.
- Promotion of culture and studies, establishing and implementing academies, museums, libraries. In 1784 Peter Leopold founded **the Accademia di Belle Arti (Academy of Fine Arts)** putting an end to the system of medieval artistic ateliers; he also opened several **museums**, academies, and **schools** such as **Accademia dei Georgofili**. Finally, he modernized Pisa and Siena Universities.

The drainage and reclamation of the Valdichiana

Many reports of the second half of 1700 describe Chiana Channel as almost dried up because of the *Chiusa dei Monaci* (*Monks' Sluice*) in the "Callone" of Valiano, as well as having many reclamations by filling, swampy sections at the sides of the Channel and at the bottom, and wide uncultivated pasture lands called *comunanze* (the commonalities).



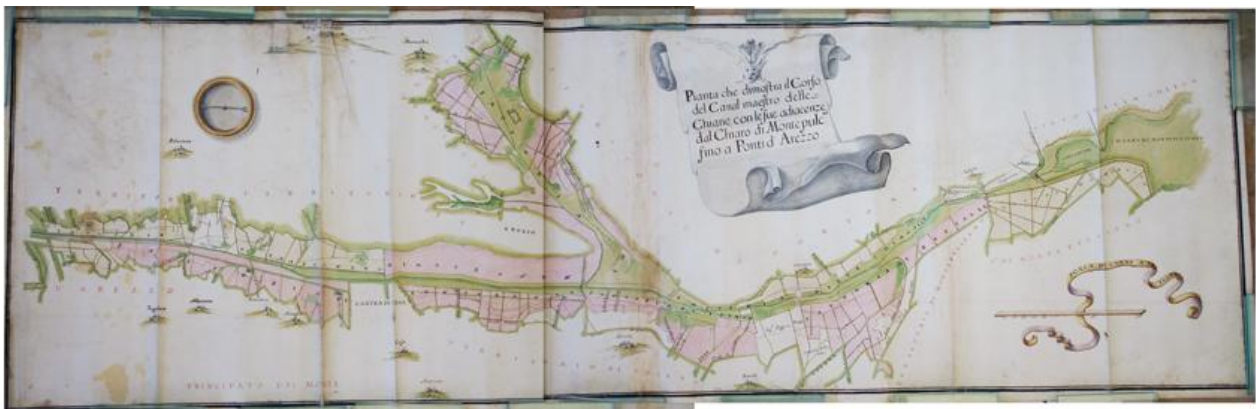
Leonardo da Vinci, Map of Valdichiana (Londra, Windsor Royal Library)

First things first, the Duke sent Leonardo Ximenes in Valdichiana in order to develop a project concerning the work required for the final drainage of the valley.

Ximenes proposed to lower the "Chiusa dei Monaci" and built various supports along the Channel. He also showed that lowering the "chiusa" would have not caused any damage to the flows of river Arno and therefore to Florence. The project was rejected by some of the most famous experts at that time, including the mathematician Thomas Perelli and the engineer Vittorio Fossombroni. The latter had submitted to Peter Leopold his manuscript *Memorie Idrauliche storiche della Val di Chiana* (Historical Hydraulic Memoirs of Val di Chiana) - published in 1789 - in which he developed for the first time a systematic plan for the reclamation by filling of the entire valley.

Having to deal with two such different opinions, Peter Leopold decided to go to the site himself in order to choose the best project on an informed basis. The Grand Duke went to Valdichiana at the end of 1769, where he was able to witness the big filling between the Callone and the bridge of Valiano. At the end of the operation, he drafted a series of observations on the state of the drainage and on the remaining obstacles, including those coming from religious authorities.

After much deliberation, the Grand Duke decided to approve Perelli and Fossombroni project and, on 1781, he drafted an overall operational plan which considered, among other things, the construction of internal roads and the abolition of all intermediate "gabelle" (taxes).



Map showing the course of the Canale Maestro della Chiana [1791] by Niccolò Montomoli (Siena State Archives, Quattro conservatori, Maps, f. 3053, c. 138)

To put an end to conflicts caused by the works of drainage of the valley between the Grand Duchy of Tuscany and the Papal State, on 1780 Peter Leopold and Pope Pius VI signed an agreement. In addition to water regulation measures in border areas, the two countries agreed to build an artificial embankment on the hills of Chiusi (where it still stands today, near the train station) marking a clear separation between the Tuscan and Roman Chiana. In doing so, the Canale Maestro (Master Channel) could pour all waters of the basin into the Arno, including those of the Tresa river (a tributary of the Trasimeno which was already artificially channeled in the lake of Chiusi) and excluding those of the creek Astrone (diverted in Umbria in the creek Chiani).

Thanks to the drainage, the cereal production of the valley - considered since ancient times the "granary of Etruria" - increased from 5,200 tons in 1765 to over 100,000 in the late 1700s.

Leopoldine: “the houses of the drainage”



Leopoldina house in the countryside around Cortona

Thanks to Peter Leopold, the reclamation work took on a new meaning: the intervention was part of the Enlightened methods of his new policy in favor of the countryside. The action was not limited to the hydraulic aspect, but included a whole range of problems related to the infrastructures necessary to provide good conditions for the inhabitants of the valley, e.g. by assigning them new or renovated houses.

The houses of reclamation, also known as Leopoldine, were built on the hills surrounding the Valdichiana, along public streets or the “vie interpoderali (streets going from one farm to another). They were often built in scenographic straights, flanked by the characteristic mulberry trees, whose leaves were used for silkworm rearing, practiced up to the 1940s. In the Montepulciano fortress, for example, there was one of the largest Italian silkworm factories (1869-1926) that gave work to 600 people.

The Leopoldine can therefore be considered the first Tuscan 'social housing', built as a solution to the poor living conditions of the farmers and also as a tool to promote a renewed social order, based on new forms of collaboration between lords, clerics, and farmers.

During his visit to Valdichiana in 1769, Peter Leopold had in fact observed in person the poor conditions in which the farmers lived: that is in small and humid houses or in fragile shacks made of mud and straw.

Designed and built as ordered by Peter Leopold, the new houses represented the symbol of a new connection between agricultural labour and human needs. The Leopoldine were in fact conceived as large and raised/elevated houses, with stables on the ground floor and living quarters on the first floor, characterized by large spaces for the family, the animals and the harvest.

The ground floor, called "rustico", was paved with stone and housed the stables, the cellar/basement and the stores for agricultural products; on the first floor, made of brick, the rooms were arranged around a large central room, which housed the kitchen and a large fireplace. That was the center of the patriarchal family life. Up until the second post-war period, twenty to thirty people lived all together in these houses.

The Leopoldine, large and solid, were built in the middle of the farm, dominated by the quadrangular tower or "piccionaia" (dovecote) with vaulted windows and an iron cross on the top. Outside, usually on the façade, there was the colored majolica emblem of the owner or a terracotta-made Virgin Mary.



Colored majolica coat of arms

As such, the Leopoldine represented a housing system that favored cleanliness and order, thanks to the rational distribution of spaces and an architecture that could serve as a support to a population exhausted by swampy areas and malaria. The goal was indeed achieved: in a few years, Leopoldine allowed to reduce considerably the incidence of diseases among the rural population.

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4. RECENT AND ONGOING RESTORATION AND VALORISATION PROJECTS

Introduction

The City of Cortona has signed an agreement with the Cultural Association ONTHEMOVE, assigning the management of the Girifalco Fortress, based on a project that aims to ensure that the Fortress of Girifalco become an international cultural center able to propose a cultural and training offer; to create a model that combines economic, environmental and social sustainability; to work for the rehabilitation of its spaces and development of the territory; to create wealth for the community and interest for its visitors; to propose network activities with public and private organizations at local, national and international level.

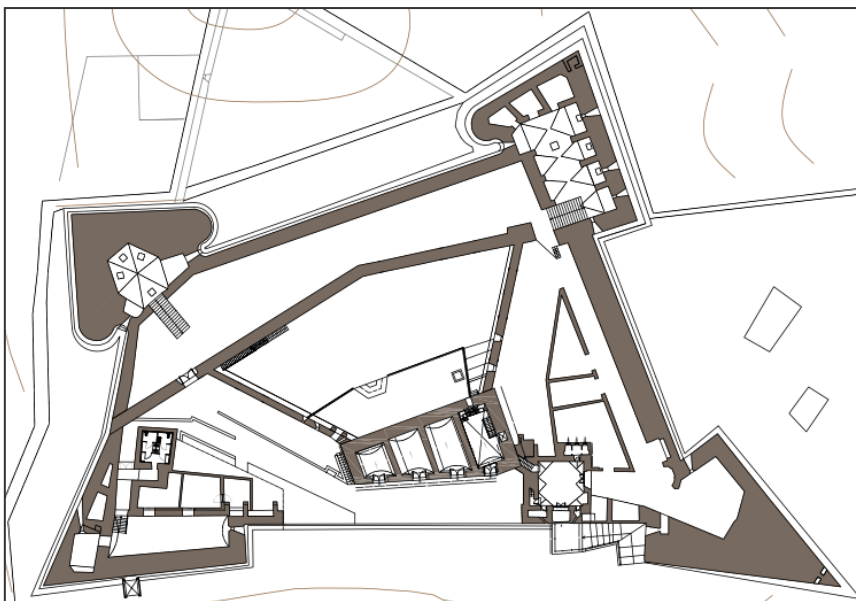
The pursuit of this objective presupposes the execution of maintenance works and retrofitting of the structure, based on interventions of conservation and enhancement of the existing structure to be defined and implemented in close collaboration with the Technical Office of the town of Cortona.

This project is therefore the result of the desire to promote and develop the usability of a monument of particular and considerable architectural and historical value and encourage a recovery process through a series of enhancement measures. The project aims to make the Fortress a container of a wide range of initiatives which include the production and delivery of innovative services, the place in which to develop classic, contemporary and avant-garde art and culture.

The interventions foreseen by this project, will focus on the main building, known as "Captain's Palace", through the implementation of a series of works that will allow the restoration of the structure and at the same time will allow the new functionalities of the premises.

General description of the complex

The **Fortress of Girifalco** complex, trapezoidal with four large bastions and a central rectangular body constitutes an interesting and characteristic work of military engineering and has the advantage of preserving intact the structural system and architectural conferred on him by the works commissioned by the Medici in the course of 1500 so to represent one of the most important monuments of Cortona and Arezzo area. The complex of the Fortress of Girifalco is placed at the highest point of the city of Cortona, just above the Sanctuary of Santa Margherita, at an altitude of m. 651.



Plan view of the complex

It stands on the probable site of the acropolis of the Etruscan town and is the result of a series of military constructions that start from the Middle Ages and saw the highest architectural expression in the sixteenth century. The remarkable site of strategic importance relates primarily to its location overlooking the historic town of Cortona, and also because from its walls it is possible to control a large tract of Valdichiana, this constituted a valuable outpost for Florence itself, especially at the time the war against Siena (1550-1555), as well as a solid bulwark on the border with the Papal States



View of Cortona with the Fortress on top

The current appearance of the Fortress of Girifalco (otherwise known as the Medici Fortress), dates from the restructuring carried out in 1561 commissioned by the Grand Duke Cosimo de 'Medici; imposing walls follow a keystone path with four corner bastions of different shapes and sizes. Each of them has its own name: the southern one is called St. Margherita (patron saint of Cortona), was located near the entrance where the guard; the others are: on west side S. Maria Nuova, at north S. Egidio (the highest mountain of the mountains of Cortona), and St. Just to the south. They were used for storing gunpowder, as prison, and to host cannons and guns to protect the citadel.

Access to the fortress is by means of a large ironed door; few years ago an external lift, near the Santa Maria Nuova bastion, was realized, which allows access to the terraced floor of the building also for disabled people.



Access area to the Fortress of Girifalco



Access area to the Fortress of Girifalco

The complex is only accessible in some parts and in particular: the main building, the bastion of Santa Maria Nuova and part of the paths. The bastions of St. Just, St. Egidio and most of the external paths are inaccessible and properly fenced.



Restoration works carried out in recent decades

In 1969 the Superintendent of Monuments and Galleries of Arezzo implemented important restoration works for the preservation and consolidation of the ancient structures of the fortification walls, of the passageway of the inner court yard and of the central keep (at the time completely ruined and devoid of cover), for the reconstruction of some fallen parts, for the

resumption of finishing works (plastering, floors, window frames), for the construction of electrical and plumbing plants that did not exist, for the execution of the safety works (parapets, railings and fences), necessary in the visit, for the public safety.

Works encompassed: the built of a new stair that would allow to access directly to the castle from the guardhouse at the Fortress entrance, the installation of a lift and the built of a wooden stair to connect the 3 castles' floors.



First floor with lift connecting all 3 floors



Third floor room, interested by 1969-1974's interventions

Interventions by the city of Cortona in 2010

In 2010 have been completed and inaugurated some interventions that have allowed the restoration of the bastion Santa Maria Nuova and the construction of a new elevator adjacent to the aforementioned bastion.

The work was realized with investment by the municipality of Cortona and Monte dei Paschi di Siena.



External and internal view of Bastion S. Maria Nuova

Interventions realized in 2015

In 2015 interventions additional were carried out by the Cultural Association ONTHEMOVE that allowed to create a cafeteria (Bistrot IN FORTEZZA), on the ground floor of the Palazzo del Capitano and to clean the facades of the Palazzo del Capitano (main façade and the left side wall) by removing dangerously detached and no longer recoverable flakes.



Bistrot IN FORTEZZA

Interventions planned on 2017

In October 2016, within a call for project issued by Regional Council of Tuscany Region for the "Grant of contributions to the enhancement of the historic walls", a part of the 'Fortress restoration and recovery project' developed in 2015 by the Association ONTHEMOVE was submitted

The whole project is described in brief in the next few paragraphs.

The Tuscany Region recognized the value of works proposed (the project was ranked finished second in their thirties that were approved) and supported with 148.000 thousand euro. The start of work is planned in the spring of 2017.

The whole project encompasses works for a value 270,000 Euros, will allow to:

- Valuing the historic walls of the city of Cortona and the Medici Fortress in them incorporated in order to increase knowledge of this complex
- Facilitate the access to the complex by creating new paths
- Enhance existing paths for disabled people by creating a new Elevator (the one installed in the 70s is out of order and no more in compliance with the law)
- Return full functionality to the halls of Palazzo del Capitano
- Retrieve portions of the walls of the city of Cortona

Project of restoration and recovery of the complex of the Fortress

The Palazzo Del Capitano

Conservation status

The building located in the center of the complex is called Palazzo del Capitano. It shows a modest state of maintenance due mainly to the lack of maintenance that resulted in years to increasingly evident degradation affecting both the wall structure that finishes. Below is a brief description on the conservation status of the individual plans:

The ground floor has four rooms of trapezoidal shape, covered by a barrel vault and with external input. The largest room is in connection with the upper floors with wooden stairs and elevator and the entrance of the former Guardhouse by stairs. Some of the ground floor walls are affected by infiltration of water from adjacent land and of rising damp phenomena. The actual flooring slabs of stone is characterized by phenomena of flaking. The plasters manifest in some walls a poor state of repair.

Much of the interior and exterior fixtures (made during the works of the '70s), while expressing a state of disrepair due to lack of maintenance, are recoverable.

The first and second floors feature throughout the same distribution of the ground floor. On the first floor two rooms have access to the courtyard. The flooring, in fired bricks, is for the most part constituted by broken elements that have lost adhesion to the substrate. The plastering of the walls and sometimes show a fairly good condition, but showing some injuries and slacks at the jambs of windows.

The third floor is on the whole in good condition. Currently there are some infiltrations from coverage because it has no waterproofing.

It also underlines the advanced state of decay of the façade of the Palazzo del Capitano affected by a slow decline that occurs with the lifting of many scales. This situation creates danger to the spaces below, and significantly limits the usability.

Envisaged interventions

The restoration and consolidation works are aimed at putting into safety of the structure, the restoration and the functional recovery of the entire complex.

The guidelines that characterize the restoration project safeguard the existing structure in accordance with the general design criteria, although, of course, and right thinking, the functionality of the work and the possibility of use by all users, even those that are otherwise skilled, provide choices of action which involve the use of more advanced technologies in favor of the new intended use.

The executive project got Favorable opinion by the Superintendency for Fine Arts and Landscape for the provinces of Siena, Grosseto and Arezzo in June 2015.

If required funds will be raised, the interventions will cover all areas of the structure: the main entrance, three floors, the exterior. The renovations provide in all areas the restoration of deteriorated plaster that can not be recovered with lime-based mortars; dismantling existing pavement where damaged and installation of new; painting of all the plastered surfaces with paints of lime milk and subsequent coating to achieve a slight haze; restoration of wooden fixtures and existing glass with replacing existing windows with safety glass and revision of the wooden parts; restoration of wooden doors; reconstruction of under Access wooden staircase railing on the first floor and a protective railing of the ramp from the floor below; review and integration of the electrical system by reusing where possible, exist tracked; supply of new LED lighting bodies; realization of heating system with FAN-COIL.

Notably on the ground floor it will be completely replaced the flooring according to energy efficiency criteria and moisture contrast. They will be restored wooden doors in connection with external and between the various areas of the palace.

To replace the existing elevator, not up to standard, it will be built a new hydraulic lift to overcome architectural barriers by using the actual elevator shaft.

As regards external interventions sides of the Captain's Palace will be the subject of a restoration of conservative type which will stop the progressive deterioration of the stones. The intervention will be preceded by a pre-consolidation of the existing situation.

It will be restored to the entrance ramp.

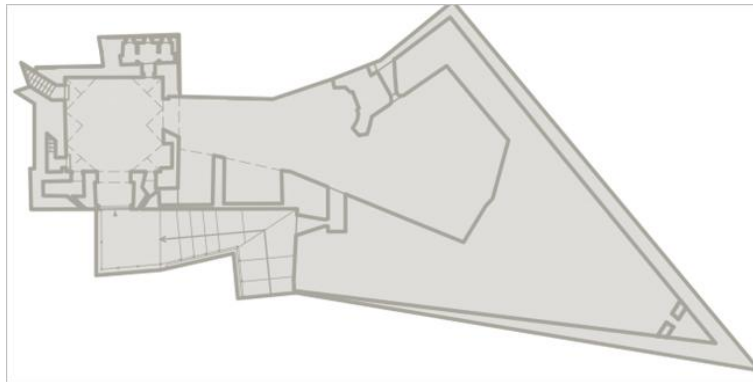
As regards to the roof it is foreseen an important interventions to eliminate all possible infiltrations. The restoration of the roof will be operated through the mantle dismantling, installation of shaving and of insulation and waterproofing panels, replacement of the mantle in the original brick with replacing broken items.

It is stated that before the actual start to the work will be performed a series of preliminary trials on plaster and paintwork in order to detect the presence of any paint or underlying frescoes. The essays will also be of interest to the walls, the thickness of the time or other parties, in order to perform in a workmanlike job.

The Bastions

Bastion S. Margherita

Bastion St. Margherita, facing south, is at the edge and in its front side houses the entrance and had the guard.



Plant view of Bastion S. Margherita

Currently it is only accessible the former Guardhouse that represents the main entrance to the complex while the entire corner part of the rampart is buried with the top which acts as a connection path between the main entrance and the area in front of the Captain's Palace. The main entrance - the former guardhouse - is affected by widespread degradation in much of the architectural elements that comprise it (paving stone, wall hangings indoor and outdoor, etc.) and at various levels.

The area outside of the bastion, a triangular base, is covered with tall trees and shrubs and the large part of the external walls is no longer visible because hidden by thick vegetation climbing. The restoration and consolidation works are aimed at putting into safety of the structure, but also to the restoration to a functional recovery of the entire complex.

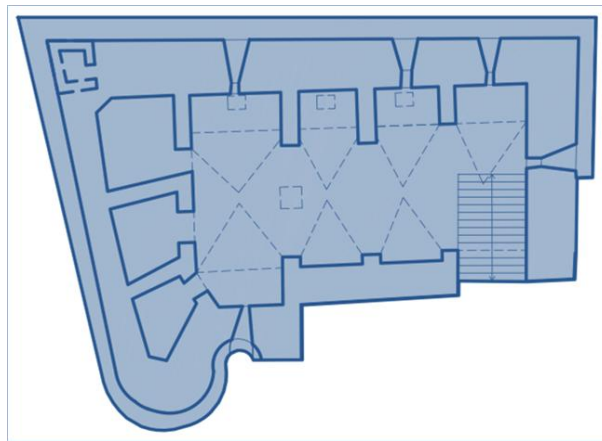
The envisaged interventions can be briefly summarized as follows:

- Preliminary checks, analysis and studies to be carried out before work;
- Cutting and removal of trees and shrubs;
- Excavation of the soil;
- Consolidation of the arcs;
- Restoration of the interior flooring of the former guardhouse and the overlying cover;
- Restoration internal and external fixtures;
- Restoration of the front door;

- Restoration of the interior walls (walls and ceilings);
- Restoration and consolidation of the external containment walls;
- Reconstruction of the outer parapet of the bastion St. Margaret;
- Search and retrieve of any buried basements;
- Realization of electrical system (internal and external), lighting with LED devices (internal and external);
- Realization of heating system;
- Reconstruction of the toilets;
- External paths recovery;
- Consolidation and restoration of the outside access ramp to the former Guardhouse

Bastion S. Giusto

The bastion St. Just, facing east, with one of its sides with a semicircle shape and the other right, housed inside two cannon places and three musketries.



Plant view of Bastion S. Giusto

The bastion is currently inaccessible to the public due to the bad state of conservation, characterized by partial collapse of some walls and the access ladder.

The state of deterioration has spread to much of the architectural elements that make it up and at various levels: the interiors are not paved, fixtures and equipment while the area above the ceiling of the rampart is completely covered with high trees and shrubs while the exterior walls are covered with a dense climbing plants.

The restoration and consolidation works are aimed at putting into safety of the structure, but also to the restoration to a functional recovery of the entire complex.

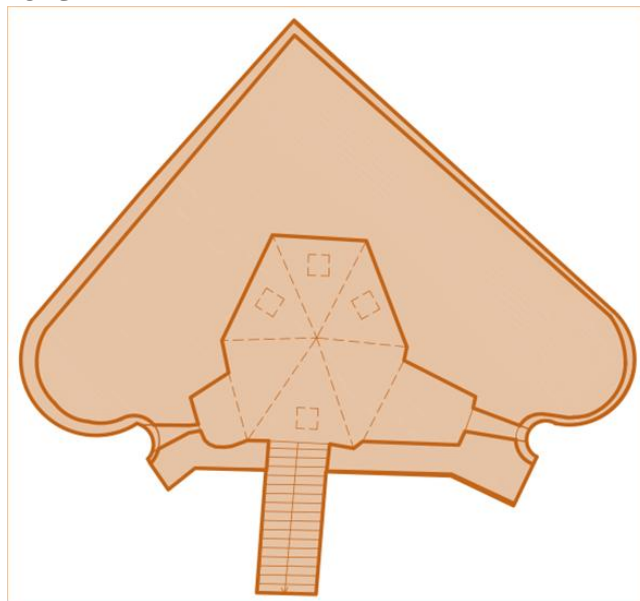
The envisaged interventions can be briefly summarized as follows:

- Preliminary checks, analysis and studies to be carried out before work;
- Cutting and removal of trees and shrubs;
- Excavation of the soil by the vault and inside the bastion to allow the formation of a ventilated floor;
- Consolidation of the arcs and realization of a new above floor;
- Realization of interior flooring;
- Realization of new internal staircase by dismantling the current structure no longer recoverable and realization of new stair in cor-ten steel and stone;

- Realization of internal and external fixtures
- Realization of skylights
- Restoration of the interior walls (walls and ceilings)
- Restoration and consolidation of the external containment walls
- Reconstruction of the perimeter of the bastion parapet
- Reconstruction of collapsed walls;
- Recovery of underground rooms
- Realization electrical system (internal and external), lighting with LED devices (internal and external), intrusion detection, data and voice transmission, in compliance with current standards.
- Realization of heating system and sprinkler firefighting system
- Realization of the toilet and technical room
- External paths Accommodation

Bastione S. Egidio

Il bastione S. Egidio, rivolto a nord, è il più regolare di tutti avendo i due fianchi a semicerchio: aveva quattro posti-cannone.



Plant view of Bastion S. Egidio

The bastion is currently inaccessible to the public because of the bad state of conservation, characterized by partial collapse of some walls overlying the access ladder.

The state of deterioration has spread to most of the architectural elements composing it and at various levels: the interiors are not surfaced, fixtures and equipment while the area above the ceiling of the rampart is completely covered with high trees and shrubs while the exterior walls are covered with a dense climbing plants.

The restoration and consolidation works are aimed at putting into safety of the structure, but also to the restoration to a functional recovery of the entire complex.

The envisaged interventions can be briefly summarized as follows:

- Preliminary checks, analysis and studies to be carried out before work;
- Cutting and removal of trees and shrubs;

- Excavation of the soil by the vault and inside the bastion to allow the formation of a ventilated floor;
- Consolidation of the arcs and realization of a new above floor;
- Realization of interior flooring;
- Restoration and consolidation of the stone staircase;
- Realization of internal and external fixtures
- Realization of skylights
- Restoration of the interior walls (walls and ceilings)
- Restoration and consolidation of the external containment walls
- Reconstruction of the perimeter of the bastion parapet
- Reconstruction of collapsed walls;
- Recovery of underground rooms
- Realization electrical system (internal and external), lighting with LED devices (internal and external), intrusion detection, data and voice transmission, in compliance with current standards.
- Realization of heating system and sprinkler firefighting system
- Realization of the toilet and technical room
- External paths Accommodation

Bastion S. Maria Nuova

The bastion of S. Maria Nuova, facing west, has an edge shape and contained the store of dust and the prison.



Plant view of Bastion S. Maria Nuova

In 2010 have been completed some interventions that have allowed the restoration of the bastion Santa Maria Nuova and the construction of a new elevator adjacent to the aforementioned bastion.

The work was conducted with municipal investments in collaboration with Monte dei Paschi di Siena and with the involvement of the singer Lorenzo Cherubini 'Jovanotti'. The bastion is currently used as a museum exhibition use.

A possible future for the Fortress: 'CORTONA IMAGE DESIGNERS ACADEMY'

The realization of restoration and enhancement projects described in previous paragraphs will allow the start of a further important step: give new life to the Fortress of Girifalco transforming into an international center able to propose an cultural and educational offer; to create a model that combines economic, environmental and social sustainability; to work for the rehabilitation of spaces and development of the area; to create wealth for the community and interest to its visitors; to propose network activities with organizations and local, national and international. With this project, Fortress will transform from a semi-abandoned space to a lively and lived site, from isolated and often forgotten structure to place firmly integrated into the fabric of the community capable of binding traditions with innovation, improve quality of life now and in the future.

The potential of the Girifalco Fortress have been demonstrated over the last 6 years of use as one of the most important venues and prestigious international festival of photography Cortona On The Move. During the summer months of the festival Fortress becomes a vital place and culturally exciting and the Cultural Association ONTHEMOVE intends to extend this vibrant industry to the rest of the year transform those centenarian walls into a creative fence, a container of excellence for cultural production internationally and a pole capable of generating an education of the highest level, with particular focus on photography and visual arts, new media and communication.

Objectives

Through the Academy project the aim is to create a cultural enterprise model, sustainable from socio-economic point of view, able to foster innovative collaboration between public and private entities for the promotion of cultural heritage, to offer high services quality and to generate employment opportunities and economic growth of the local fabric. The specific objectives identified for the achievement of the aforesaid general objective are:

- Fully Recover and enhance a monumental site of extraordinary value and architectural, historical, artistic, cultural and archaeological heritage
- Realize an exhibition area in the Palace of the Captain of the Fortress of Girifalco that can accommodate works of the highest level by adapting the spaces with international standards (lighting, security systems, usability, microclimate)
- Realize equipped areas dedicated to training, congress activities etc. in the hall of Sant'Egidio and San Giusto Bastions
- Give life to the International Academy of Photography CORTONA IMAGE DESIGNER ACADEMY able to offer on the international market an education of high profile and prestige in the field of visual arts and to make alive and sustainable the activities within the complex after its restoration.

The Academy

The birth of the International Academy of Photography CORTONA IMAGE DESIGNERS ACADEMY is an important point of arrival of the long term project set up by the cultural association. This institution will base its roots in the experience of the Festival of Photography 'Cortona on the Move', and the focus will be aimed at providing training programs to meet the contemporary needs of the market.

The Academy's mission will be to offer the highest quality training and became an international cultural center and research on photography and visual communication, a place of study and research on the fundamental role they play and training of a new generation of professionals looking to the needs, the role and value that the image be it photographic or video, digitally processed, will have in the future.

The Academy will be a 'new' and innovative school, able to group all those disciplines related to enforcement, treatment and contextualization of the image, being it still or in motion, and, through a multidisciplinary approach, providing an ideal space for comparison, the growth and

study of the image and form new professional profiles able to offer innovative skills related to new media, web and digital image; a new generation of creative documentary specialized in web, multimedia production, 3D, virtual reality and augmented reality, digital archiving, e-business, social media.