ARCHITECTURE AND CIRCULATION OF TREATISES IN THE LANGUE OF ITALY (ORDER OF ST JOHN OF JERUSALEM) DURING 16TH-17TH CENTURIES

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Abstract
This paper explores the circulation of books among the knights of the Order of St John with the aim of investigating and defining the cultural, and architectural interests that contributed to the exchange of ideas and the migration of styles between the Langue of Italy and the capital of the Order of Malta, Valletta, in the 16th century. The investigation is conducted through the analysis of dispropriamenti*, which are documents produced to attest the properties of the knights during their service and upon their death. The Hospitallers came from the elite of the European aristocracy, and their social background provided them with a scholarly education and allowed them to have interests in multiple disciplines, from painting to architectural treatises. Their mandatory stay as religious members in Malta for at least five years and their career within the Order facilitated intense cultural exchanges and the migration of architectural models.*

Keywords
Circulation; Architectural Treatises; Migration; Order of St John of Jerusalem; Construction History

As already pointed out in Zammit's studies[1], the Library of the Convent in Valletta[2] was further expanded in 1612 under the governance of Grand Master Fra' Alof de Wignacourt[3], with the addition of a specific note strictly prohibiting the sale of books in an effort to consolidate the original core of the library. Furthermore, Cardinal Francisco Joaquín Fernández de Portocarrero y Mendoza[4] left his entire library to the Convent, which at that time consisted of approximately five thousand volumes. Bailiff Jean Louis Guérin de Tencin[5] further enriched the substantial collection by bequeathing his own collection[6]. Moreover, the volumes from another library were integrated into the collections: this was the library of the Camerata, established in 1593 by Grand Master Fra' Hughes Loubenx de Verdalle[7]. The grand master decided to donate his private volumes because was interested in the cultural life of the knights, who were devoted to charitable works and the care of the sick[8].

The *dispropriamenti* or inventory of possessions of the deceased knights included all assets owned during their lifetime, such as precious jewellery, as well as objects like paintings, books, and prints, as recorded in the January 1662 inventory of the Florentine knight Fra' Francesco Gherardi: «1 Print of Italy / The Siege of Malta printed on 16 folios / 6 folios of various countries in print»[9], and also «1 Book of fortifications»[10]. These inventories list numerous books, including religious volumes, theatrical works, numerous language dictionaries – particularly Italian and French – but also books on geometry, mathematics, and military topics, reflecting the varied interests of the knights. From the inventories analysed, it is evident that the theme of fortifications was of recurring interest among the Tuscan knights: in the inventory of Fra' Francesco Spada, dated 20 September 1677, and drafted in Lucca, there is a painting of the fortresses of Malta without a frame.

The art of warfare remained a constant interest among the engineers who travelled to the island. They were sent by princes, popes, and dukes of the Italian States to build fortresses between the 16th and 18th centuries, as well as among the knights of noble origins. An unpublished document related to the *Stato della Casa della Cammarata con sua Cappella sue Sagre supellettili e Reliquie, E di tutti li quadri, e Mobbili esistenti nelle rispettive Stanze, Argenti, Rame, E Libri* still exists in the National Library of Malta[11] [fig. 1] and it can be dated back to the mid-18th century due to the presence of the inventory of Bailiff Cavaniglia, who died in the mid-18th century. This document contains the list of assets in the *Casa della Camerata* or House of the Camerata, where the Hospitaller knights lived, and it also contains further assets and documents, connected to the military arts. In the Library room of the Camerata, there is indeed «a wooden model of the Hospital with three wooden cannons»[12], as well as «two other boxes with various wooden models» and «three stone models of the Fortifications»[13]. These *maquettes* were, in fact, an established method for presenting projects to European sovereigns: even Laparelli, the pope's architect and designer of Valletta, the Order's capital city, had proposed a wax model to the grand master, accompanied by drawings for the new city. The Camerata remained a separate institution, as did its library, until 1798: its volumes bore a special marking (*della Camerata*), still recognisable in the volumes of the National Library of Malta today [fig. 2].

Fra' Marsilio Tommasi was a knight and commander from Cortona, also the hometown of Francesco Laparelli. In his 1688 inventory, he listed «a map with a drawing of the island and city of Malta [...] an old unframed painting of a knight of St Stephen from the Tommasi family»[14], and also «1 Historia d'Italia by Guicciardini»[15]. The *Historia* by Guicciardini was undoubtedly necessary for the study of history for strategic and political purposes. In the same inventory there were also «various pieces of printed books [...] 1 book titled the Artillery of Tartaglia / 1 various political and military [books] [...] 1 manuscript Introduction to Military Architecture»[16]. The Artillery of Tartaglia printed volume can be identified as Niccolò

Tartaglia's *Nova Scientia*, a treatise published in 1537 concerning the applications of mathematics to artillery problems[17] [fig. 3]. The interest of the Hospitallers appears to have been directed not only towards fortresses but also towards geometry and trigonometry. These topics were fundamental to the study of the military arts. Many fortification treatises of the time, in fact, began with rules of theoretical and applied geometry. In the inventory of Fra' Francesco Spada's possessions, there were books on «Plane and Spherical Trigonometry»[18] among the inventory of Fra' Marsilio Tommasi: «1 Lexicon Mathematicus»[19] and «1 Treatise on the Sphere by Galileo Galilei / 1 Dimension of Straight Lines / 1 Reformed Geography and Hydrography»[20], and also «1 On Sundials»[21]. Due to the limited information available in the archives, we cannot precisely identify the edition of the volume on sundials. However, it is certain that numerous editions circulated at the time, such as the 1565 edition by Giovanni Battista Vimercati printed and found widely in Venice and other cities[22], as well as editions by Giovanni Paolo Gallucci (1590)[23] and Valentino Pini (1598)[24]. Sundials are part of the study of gnomonics, defined as one of the three branches of architecture by Vitruvius[25] and developed in Book IX of *De Architectura*. The Della Volpaia family in Florence was one of the firsts to study sundials, and this topic was later extensively developed in Leonardo's Codex Madrid I[26].

In the inventory of Fra' Francesco Spada, there was also «1 Thaumaturgus Mathematicus / 1 elementary Geometry»[27]. The *Thaumaturgus Mathematicus* was the work of the mathematician Gaspar Ens, and it was first published in Latin in Venice in 1636 and reprinted multiple times. We do not know which edition the knight possessed, but the presence of this treatise indicates a refined and highly specialised interest in mathematics. The *Thaumaturgus* book was inspired by Leurechon's *Récréation Mathématique* (1624), but with the addition of engineering puzzles, alchemy, and geometry, with clear references to Archimedes [fig. 4]. Archimedes was an inventor of war machines, including, according to Valturio, the *architronito*, a type of steam cannon later perfected by Leonardo and described in Manuscript B as a «machine of fine copper, an invention of Archimedes, that hurls iron balls with great noise and fury»[28]. Archimedes was also the inventor of the *Tolenon*[29] as described by Vegetius in Book IV[30]. This instrument was used in land sieges but also in naval warfare for lifting the bows of Roman ships approaching the fortresses of Syracuse[31], as described by Polybius and Livy.

A significant number of ancient books on architecture are preserved at the National Library in Valletta. The collection, exceptionally rich in rare volumes and first editions, includes

Fig. 1. Valletta, National Library of Malta: the library today (picture 2024).

Fig. 2. Valletta, National Library of Malta, detail of the architectural treatises (picture 2024).

Fig. 3. Niccolò Tartaglia, La nuova scientia de Nicolo Tartaglia con una gionta al terzo libro*, Venezia, Nicolò de Bascarini, 1550.*

commentaries on Vitruvius and many other treatises. Further investigations are currently underway to reconstruct the original core of the library and the oldest volumes related to architectural matters it contained. To date, no book inventories from that period are known to exist, and very few inventories of belongings are extant, with no sixteenth-century purchase records available to confirm the presence of these texts before or after the construction of Valletta.

Among the books of architecture is the precious *Tutte l'Opere d'Architettura*[32] by Sebastiano Serlio, printed in Venice by Francesco de' Franceschi in 1584. Serlio's work was particularly significant in Malta according to the studies of Vella Bonavita: one of the editions was present in the birthplace of the engineer Laparelli and probably contributed to his education. The strong influence of Serlio's treatise is still evident in Maltese buildings, from the decorations of the portals to the frequent use of rustication, ranging from rustic to diamond-point styles.

The 1580s were marked by the magisterium of Verdala, whose interest in art and architecture is well known. In his inventory at the time of his death (1595), the following items were listed: «1 The Capitular Ordinances of the Year 1588, 2 The Antiquities of Rome, 3 The Stations of the Churches of Rome, 4 Treatise on the Frequentation of Holy Communion, 5 The Office of Holy Week, 6 Portrait of the Life of the Madonna»[33]. The volume titled *The Antiquities of Rome*[34], for which the edition and year can only be speculated, fits into the tradition of the *Mirabilia Urbis* medieval guides popularised in the fifteenth century and reflects the Varronian perspective on antiquities, based on the works of Flavio Biondo, that were widely disseminated between 1540 and 1550 following the first translations into Italian[35].

The presence of this treatise in the grand master's inventory signifies a refined interest in antiquity and architecture, as well as indicating Verdala's desire to consolidate his image as a Christian prince.

Grand Master Verdala grew up in the family castle (Château de Loubens-Lauragais) near Haute-Garonne [fig. 5]. The castle had been founded by the ancient family of Loubens de la Réole from Gironde. His brother Jacques de Loubens had expanded the original residence. The castle became the property of the Bournazel family; gradually falling into disrepair, it was later used as a granary for the estate. In the 1760s, Joseph François de Gounon, a captain from Toulouse, acquired the title: it was then that the interiors, unchanged since the 16th century, were renovated. According to historiography[36], Verdala was introduced to humanistic studies and joined the Order's Langue of Provence at a young age. His inclination towards the arts and culture was inherited from his family: as early as the 14th century, his ancestors had established a chair of philosophy at the University of Toulouse[37]. The period of Verdala's youth in France was marked by the spread of the Renaissance style under the enlightened King Francis I. During this era, humanist patrons commissioned villas for courtly leisure in suburban palaces, overlooking splendid landscapes and extensive gardens. It is possible that Verdala was familiar with the Château de Chambord[38], which was characterised by four corner towers and a keep, with large vestibules forming a Greek cross, at the centre of which is the famous double-helix staircase originally

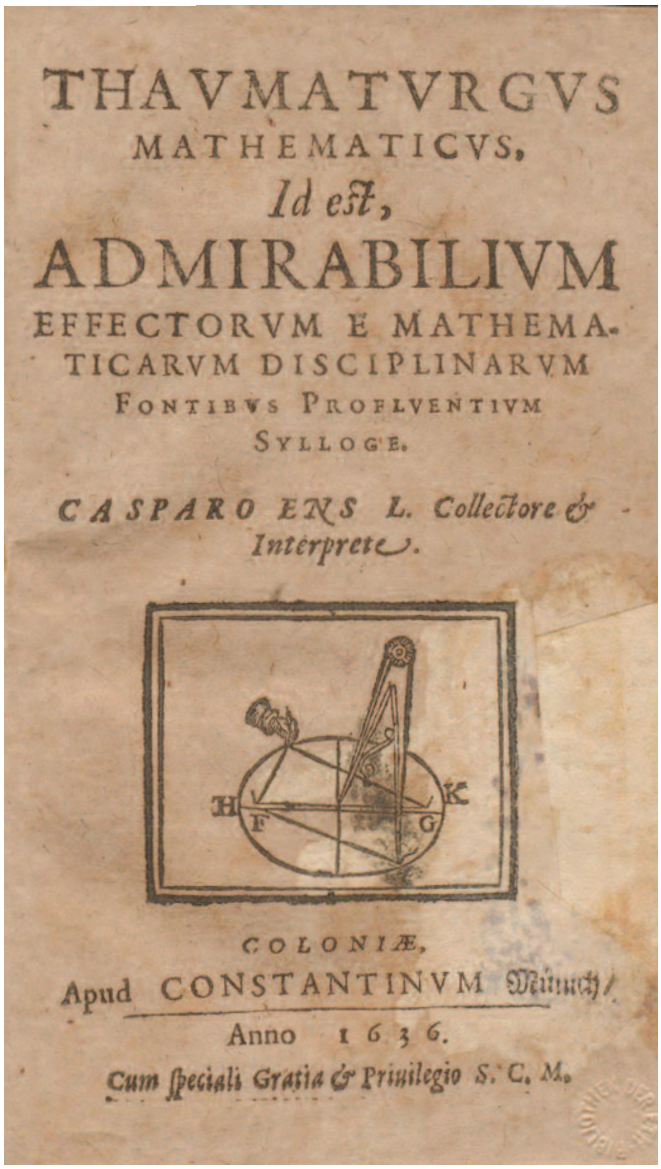
THAVMATVRGVS
MATHEMATICVS,
Id est,
ADMIRABILIVM
EFFECTORVM E MATHEMA-
TICARVM DISCIPLINARVM
FONTIBVS PROFLVENTIVM
SYLLOGE.
CASPARO ENS L. Collectore & Interprete.
H
F
G
K
COLONIÆ,
Apud CONSTANTINVM Munich/
Anno 1636.
Cum speciali Gratia & Privilegio S. C. M.

Fig. 4. Gaspar Ens, Thaumaturgus mathematicus: id est, admirabilium effectorum e mathematicarum disciplinarum fontibus profluentium sylloge / Casparo Ens L. collectore & interprete, *Colonia, Costantinum Munch, 1636.*

Fig. 5. Haute-Garonne, Château de Loubens-Lauragais (wikimedia).

designed by Leonardo da Vinci. He may have had similar designs in mind when he was elected grand master.
An unpublished document found in the Archives of the Grand Magisterium in Rome reveals several trips made by Verdala to Rome between 1582 and 1585[39]. It was customary for grand masters to travel to Rome, particularly when received by the pope. The journey of Verdala from Malta to Rome is described in detail in the documents, and it is possible to retrace the steps that every grand master before him had taken when traveling to Rome. Verdala visited Syracuse and Messina, where «he was greeted first with all the artillery of the castles and the city upon entering, disembarking, and departing [...] all the royal officials came to receive and accompany him to the king's palace where he was lodged»[40]. The castle referred to in the letter was possibly the Maniace Castle in Syracuse, while the palace of the viceroys in Messina could be identified as the Royal Palace, which at the time was transformed into its quadrangular layout with compact volumes and prominent four corner towers with loggias[41], according to the design of Andrea Calamech from Carrara[42]. Calamech was the pupil of Ammannati, and he was credited with bringing the Tuscan Renaissance style to Messina[43].
For the design of his suburban palace in Rabat[44] [fig. 6], Verdala followed the models of Tuscan suburban palaces, drawing inspiration from Giuliano da Sangallo's Poggio a Caiano and Baldassarre Peruzzi's palace of Poggioreale. The drawings for the palace of Poggioreale were disseminated, albeit in a more schematic and imprecise version, through the publication of Serlio's *Third Book* in 1540[45] [fig. 7], and revisited in the 1584 edition, which is available at the National Library of Malta. The fortified villa model also spread to France, the grand master's homeland, particularly in the version by De l'Orme[46], establishing a strong parallel. In any case, the references to the palace or *delitia* of Poggioreale are numerous.
The typology of the fortified villa, already developed by the young Baldassarre Peruzzi for a villa on the Janiculum Hill in Rome dominated by the Borgias[47], was extremely significant following the events of the Sack of Rome in 1527 and gained popularity in the politically uncertain climate of central Italy. Both Jacopo Barozzi da Vignola and Sebastiano Serlio, pupils of Baldassarre Peruzzi, had adopted the fortified villa model theorised by their master: Vignola developed it in the renowned Farnese project at Caprarola, and Serlio in his books[48]. Gerolamo Cassar[49], of Maltese origin and perhaps as the architect of the palace, had been taught by Francesco Laparelli from Cortona, who had also worked in Rome, particularly in Borgo Pio. Cassar then travelled to Rome and Naples, as directed by Grand Master Fra' Pietro Del Monte[50], potentially giving him the opportunity to visit Palazzo Farnese at Caprarola, Vignola's work, as well as Pog-

Fig. 6. Rabat, Verdala palace (picture 2021).

gioreale in Naples. The fortified villa of Poggioreale enjoyed considerable popularity at the time: Serlio's illustration was widely circulated across Europe through the publication of the *Third Book* in 1540[51]. Despite presenting a schematic and imprecise depiction of the palace, its impact was significant, and not only in the Italian States.

Poggioreale is described as the «Royal Palace built around the year 1483 for Alfonso [of Aragon] with indescribable delights, gardens, fountains, and groves that reached the sea»[52]: the palace was designed by Baldassarre Peruzzi with a large fishpond at the foot of the loggia and a garden in front, with four large flowerbeds and a central fountain[53]. Similarly, the grand master Verdala's suburban palace was characterised by «beautiful and delightful fountains and gardens»[54] and it was surrounded by a grove, «marvelously beautiful with a grand fountain»[55], as well as «two very clear fishponds»[56] and «made much more beautiful than it was before by the illustrious De Vallette»[57]. The grand master's palace in Valletta also featured fountains and a nymphaeum with statues, recently discovered during restoration works.

It is often assumed that Cassar was the architect of palazzo Verdala, however, since we do not have documents regarding all of his works in Malta, this is not certain. It is possible that he might have had access to the books possessed by the grand master Verdala, and perhaps studied the treatises of architecture independently, given the substantial number of books available in the Camerata Library. In any case, whoever the architect was, he may have studied the works of Philibert De L'Orme[58]. De L'Orme reinterpreted the fortified villa, a «plan de bâtiment en forme d'un pavillon quarré ayant terrasses tout autour, boulevart, & fossés»[59], possibly starting from the model initially developed by Serlio. According to studies by Sabine Frommel[60], Vignola and Serlio were both working at the Fontainebleau site for the king Francis I between spring 1541 and spring 1543, while shortly after, in 1547, De L'Orme was appointed royal architect and employed at the same site. It is conceivable that exchanges among the two architects occurred during this time, resulting in the French derivation of the fortified villa model theorised by Peruzzi and his pupils, and disseminated by De L'Orme. De L'Orme was from Lyon, and it was in that city that, according to Jacopo Strada in his introduction to *Book VII* (Second Book of Architecture, 1575, fol. 3v), that the architect acquired drawings with their related texts from Serlio himself[61]. The plate from Tome I p. 18[62] [fig. 8] of De L'Orme's *Nouvelles Inventions* is much closer in form to Serlio's drawing at fol. 28r, which depicts the House of the Tyrant Prince in *Tutte l'opere di architettura...*[63], rather than the plate from *Book III* of the same author[64] depicting Poggioreale[65]. Furthermore, Serlio's description of the tyrant

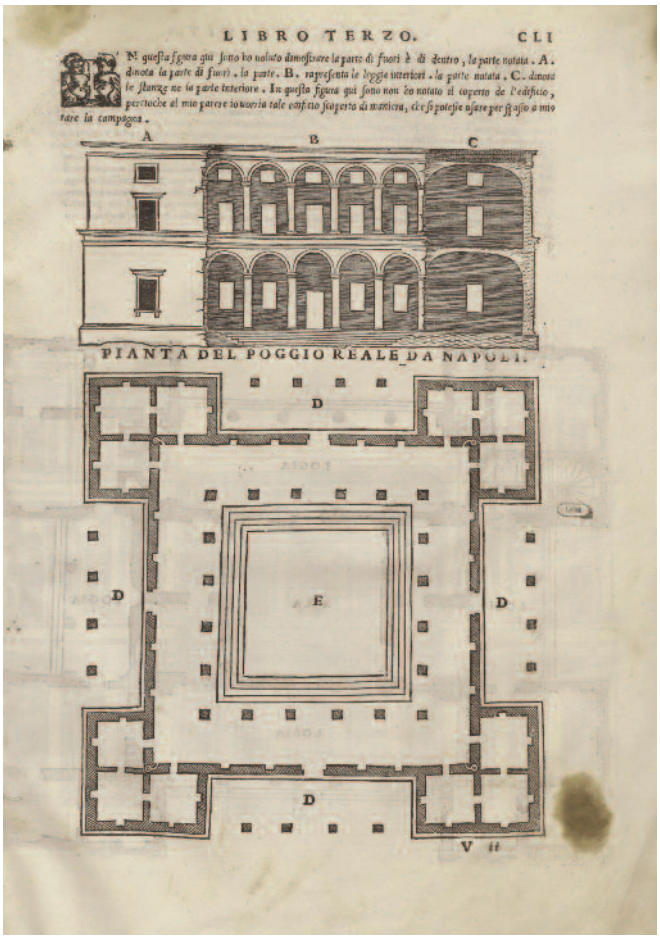

Fig. 7. Sebastiano Serlio, Il terzo libro di Sebastiano Serlio bolognese, nel qual si figurano e descrivono le antichità di Roma, e le altre cose che sono in Italia, e fuori d'Italia, *Francesco Marcolini, Venezia, 1540.*

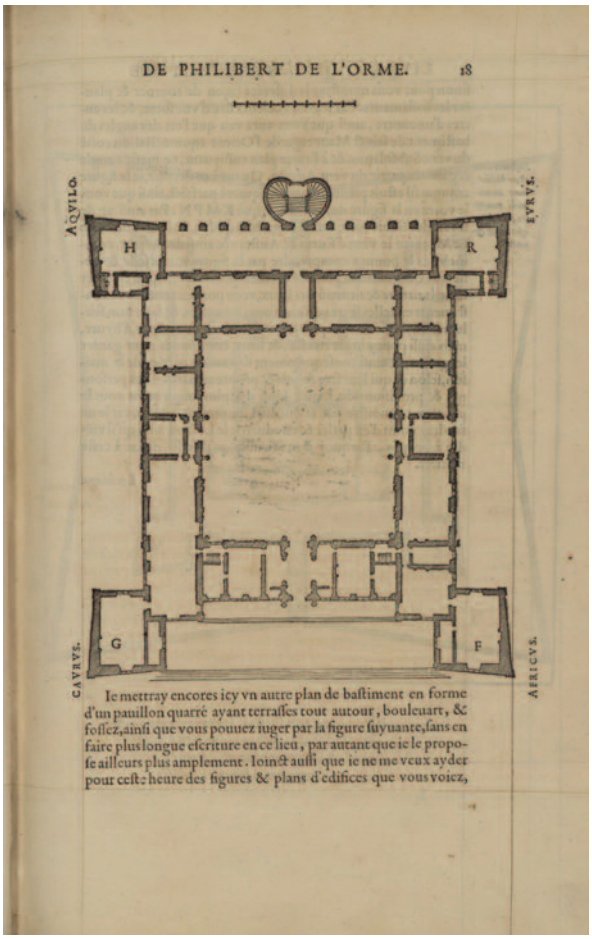

Fig. 8. Philibert De L'Orme, Le Premier Tome de l'Architecture…, *Fréderique Morel, Paris, 1567-1568, p. 18 (CESR Tours, Architecture, Textes et Images XVIe-XVIIe siècles).*

prince[66] seems aligned with the image of the Christian prince that Grand Master Verdala aimed to create [fig. 9].
Tutte l'opere di architettura in the 1584 edition[67] is also present in the National Library of Malta. It seems quite possible that De L'Orme had the opportunity to directly view the projects of Serlio during his experience in the French buildings: in fact his own drawings refer more closely to those projects rather than to the plate from Serlio's *Book III*, which was disseminated across Europe through the treatise. This hypothesis seems likely when comparing the corner bodies in Serlio's design for the House of the Tyrant Prince rather than Serlio's plate for Poggioreale in comparison with the existing palace in Malta: in Serlio's drawing, in fact, there are bastioned elements as integral parts of the palace: bastions are also present in Verdala Palace. This parallel becomes particularly interesting when considering the dating of Verdala Palace: the palace was built around 1586, and it was probably one of the earliest examples of the adoption of the Renaissance model of the fortified villa in Europe, outside the Italian states [fig. 10].
However, in Serlio's plate for Poggioreale (Book III), the corner bodies have a quadrangular shape and are connected to the structure via a spiral staircase.

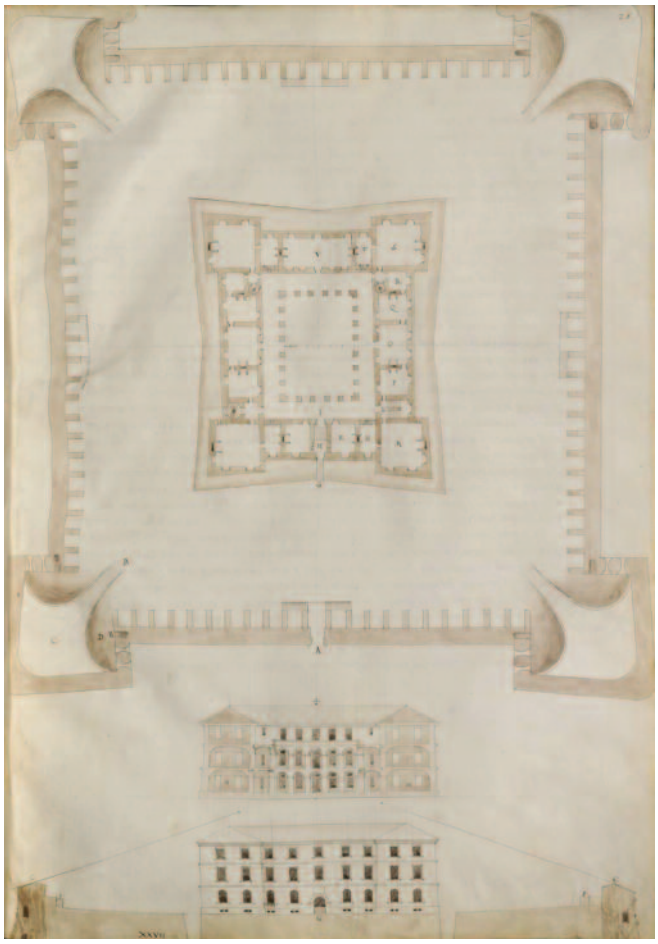

Fig. 9. Sebastiano Serlio, Casa del principe tiranno per far fuori alla campagna*, Monaco di Baviera, Bayerische Staatsbibliothek, Sesto libro d'architettura. Delle habitationi fuori e dentro delle città. 1547-1550. Cod. icon. 189, fol. 28r. Courtesy of Bayerische Staatsbibliothek.*

In addition to possible mutual influences among the architects, it is possible that these drawings have some similarities because they were commissioned between the French court and Verdala in the early 1520s. It is possible that ideas were also exchanged in other ways: De L'Orme was well known in France as the architect of the king Francis I and later of Henry II, and his works for the king could certainly have captivated the young Verdala. Grand Master Verdala was a member of the highest nobility: the numerous letters he exchanged with Catherine of the Medici family, wife of Henry II, indicate a very close relationship, often mentioning his brother, Jacques de Verdalle, also a member of the Order and prominent in all official court occasions[68].
The numerous handwritten notes in the margins of some of the treatises found in the Valletta library highlight careful study of the drawings, knowledge of geometries and harmonious proportions between the parts. In Leon Batista Alberti's *Architecture* in the 1550 Torrentina edition[69], preserved at the National Library of Malta, there are notes in the margin in Italian and Spanish. The comments in Spanish refer to the method of making round domes as described in chapter XIV of the Third Book of the *Opere* by Serlio[70]. There is a note in Spanish about water conduction: the conduction of water was one of the most interesting topics in hydraulic engineering and it denoted a certain knowledge of hydraulics. Furthermore, water supply was an essential issue on the island due to the scarcity of springs, as highlighted by the apostolic delegate Pietro Dusina in a report dated 1575. Equipping Valletta with a capillary water system was crucial not only for the supply of the knights in their palaces or *Auberges*[71], necessary for the functioning of the fountains, but also to withstand longer in case of a siege, as emphasised by Francesco de Marchi in his treatise. Although the aqueduct[72] was built in Malta in 1610 by the Bolognese engineer Bontadino de Bontadini under Grand Master Fra' Alof de Wignacourt, the project for an aqueduct had previously been promoted by the Spanish grand master Fra' Martin Garzez[73] in 1596. The notes in the 1550 treatise by Alberti are not signed, but may have been made by a Sixteenth-century Spanish architect. His annotations denote a clear interest in hydraulics, possibly with reference to the water supply projects on the island.
In conclusion, the handwritten notes in the margins of the treatises indicate that possibly these books have been studied by the military engineers present on the island or by knights with a culture and specific interest in these subjects. These were probably the same military engineers who worked on the island for the construction of the fortified walls or of the capital city, Valletta. They brought their knowledge, their projects, and everything needed for the urban plans, according to the art of building consolidated in the construction sites in the Italian States and learned from architectural treatises. The knights, for their part, contributed with donations to the Hospital's library of volumes (including architectural treatises), inherited from their families. From its foundation, the cosmopolitan dimension of Valletta attracted men of high social class, from different cultures, and with various origins: the knights came from different *Langues* and spent at least five years in Malta to complete their religious training, contributing to intense cultural exchanges. Their noble social extraction meant that they had culture and interests in

multiple disciplines, as well as an excellent knowledge of Latin required by their religious role.
The *Langues* of the Order had a significant impact: in particular, the *Langues* of origin of the grand masters were decisive, each time, in various urban choices, not only political but also architectural. There was a particular predominance of the Italian *Langue* politically in the early modern period, during the construction of the new city between the mid-sixteenth and early seventeenth centuries, with specific reference in architecture to the models of the Tuscan tradition—thanks to the significant influence of Tuscan military engineers serving the Medici—and the Sicilian tradition, specifically Messina. Messina was one of the most important port cities in the Mediterranean for trade, its wealth fuelled by numerous flows of merchants throughout Europe: it was Sicily's main port for commercial and cultural exchanges with the Order of Malta. The Florentine sculptor Giovannangelo Montorsoli arrived in Messina in 1547 and bringing with him the Renaissance culture from the Florence of Buonarroti and Ammannati. As Vasari reports in Montorsoli's biography, he was nominated for the reconfiguration of the church of San Lorenzo in Messina and for the creation of a monumental fountain in front of the city's main church. Montorsoli intended this fountain to create a model for the Sicilian school, following the example of the Neptune fountain in Piazza della Signoria in Florence and Piazza Maggiore in Bologna, thus initiating a process of renovation in sculpture as well. The Carrara architect and sculptor Andrea Calamech, trained in Ammannati's workshop, worked in Messina between 1565 and 1589 with a notable artistic production. The planning and construction of the fountain took place under the supervision of the viceroy Juan de Vega, who also had close relations with the Hospital and therefore acted as a link between Florentine culture and Malta. Thus, while it is undeniable that the privileged connection with nearby Sicily characterized much of Maltese architectural culture, it is also evident that there was a shift in direction by the end of the sixteenth century, which developed more fully between the first half of the seventeenth century and the mid-eighteenth century.
Under Grand Master Verdala, the internal balance within the Order began to disintegrate: the French knights began to occupy key positions, as reported on 12 July 1584 to Emperor Philip II of Spain. In the seventeenth and eighteenth centuries, there was a strong influence on the Order's policies by the French crown and the Savoy State, with the predominance of the Grand Priory of Lombardy and Venice; an influence that also extended to the sphere of architecture. From the mid-Seventeenth century onwards, the Order increasingly called upon the Priors of Lombardy and Venice, or Piedmontese military engineers for the revision and completion of the fortifications. Key figures here include Prior Fra' Giovanni Maria Caravita, author of the *Treatise on Commanderies* for the administration of possessions outside Malta, military engineers such as Antonio Maurizio Valperga, author of the Cottonera fortified line[74], and Fra' Giuseppe Giorgio Valperga di Masino, an important member of the Piedmontese aristocracy in the eighteenth century and a member of the Order of Malta, an interested connoisseur of arms and fortification systems, whose private archive is preserved in Masino.
It can be said that by the mid-Eighteenth century, the Order was extensively connected to models, books, and individuals that, passing through the Mediterranean, made the Maltese archipelago a true European crossroads.

Fig. 10. Rabat, Verdala palace (picture 2021).

Note

[1] Abbr.: ACM = *Archivum Cathedralis Melitensis*; AOM = *Archivum Ordinis Melitae*; ASFi = Archivio di Stato di Firenze; ASMOM = Archivi del Sovrano Militare Ordine di Malta (Archivi Magistrali); ASV = Archivio Segreto Vaticano; BAV = Biblioteca Apostolica Vaticana; GDSU = Gabinetto Disegno e Stampe degli Uffizi, Firenze; Ms. B = Leonardo da Vinci, Manuscript B, Institut de France, Paris; NAV = Notarial Archives of Valletta; NLM = National Library of Malta.

[2] NLM, AOM 288, *Sacra Capitulia Generalia* (1555, 1558, 1565), fol. 12v. The volumes preserved today in the National Library of Malta are part of the original core of the conventual library, as demonstrated in Zammit W. 2013, p. 152.

[3] Fra' Alof de Wignacourt (b. 1547 – d. 1622) was elected grand master from 1601 to 1622. Originally from the Langue of Auvergne, he was especially renowned for his work on the coastal fortresses in Malta and for the construction of the aqueduct.

[4] Francisco Joaquìn Fernàndez de Portocarrero y Mendoza (b. 1681 – d. 1760) was a Spanish cardinal of the Holy Roman Church from 1743, appointed by Pope Benedict XIV. He was also a knight of the Order of St John, serving as an ambassador. He was notable as a patron and protector of writers, scientists, and artists, but most notably as a collector of books.

[5] He was born in 1702 in Grenoble and was a very influential member of the Order, becoming the ambassador to the Holy See between 1741 and 1748.
[6] Formiga, 2012, p. 55.
[7] Fra' Hughes Loubenx de Verdalle (b. 1531, Loubens – d. 1595, Valletta) hailed from the Langue of Provence and belonged to a French noble family. Prior to his election as grand master, he served as the Hospitaller ambassador in Rome from 1579 to 1580. Verdalle was elected grand master on 12 January 1582, in recognition of his merits. Pope Sixtus V (pontificate: 1585-1590) elevated him to the rank of cardinal on 18 December 1587. He held this office until his death on 4 May 1595, in Valletta. In a letter dated 4 February 1588, Verdalle expressed his gratitude to Pope Sixtus V for his promotion to the cardinalate (ASV, Segr. Stato, Malta, 2, fol. 3r).
[8] Depasquale, 2010, p. 60.
[9] ASFi, *Corporazioni religiose soppresse dal Governo Francese* 132, no. 97. Indexes from 1672 to 1694, 17 May 1663, fol. 648r, inventory dated 23 January 1662.
[10] *Ibid*.
[11] *Stato della Casa della Cammarata con sua Cappella sue Sagre supellettili e Reliquie, E di tutti li quadri, e Mobbili esistenti nelle rispettive Stanze, Argenti, Rame, E Libri*, in NLM, AOM 6408, fols. 1r-26v (pp. 136-149). The report is undated, but likely 18th century due to the presence of the index of Balì Cavaniglia, who died in the mid-18th century. Special thanks to Prof. Valeria Vanesio for bringing this unpublished document to our attention.
[12] *Ibid*.
[13] *Ibid*.
[14] *Ibid*., fol. 545v. *Inventario dei beni del cavaliere Fra' Marsilio Tommasi dell'anno 1688* or Inventory of the assets of Knight Fra' Marsilio Tommasi for the year 1688.
[15] *Ibid*., fol. 551r. *Inventario dei beni del cavaliere Fra' Marsilio Tommasi dell'anno 1688 con diversi libri sopra un tavolino in una delle camere* or Inventory of the assets of Knight Fra' Marsilio Tommasi for the year 1688, with several books on a small table in one of the rooms.
[16] *Ibid*., fol. 546r. *Inventario dei beni nell'armadio a muro del salotto della casa di Cortona di Fra' Marsilio Tommasi* or Inventory of the items in the built-in wardrobe of the living room in Fra' Marsilio Tommasi's house in Cortona.
[17] Niccolò (Fontana) Tartaglia, known as Tartaglia, was born in Brescia in 1499 and died in Venice in 1557. In Venice, he learned mathematics and became a talented mathematician, working as a teacher. Among his contributions to mathematics was the solution of cubic equations (today known as the Cardano-Tartaglia formula). He authored numerous works, including *Nova Scientia* (1537), which dealt with the applications of mathematics to artillery problems, translations of Euclid's *Elementi* (1543), and *Quesiti et Inventioni Diverse* (1546), in which he expounded on the law of the inclined plane.
[18] ASFi, *Corporazioni religiose soppresse dal Governo Francese* 132, no. 97. Indexes from 1672 to 1694, fol. 275v. *Inventario di Fra' Francesco Spada del 25 settembre 1677* or Inventory of Fra' Francesco Spada dated 25 September 1677.
[19] *Ibid*., fol. 548r. *Inventario dei beni del cavaliere Fra' Marsilio Tommasi dell'anno 1688* or Inventory of the assets of Knight Fra' Marsilio Tommasi for the year 1688.
[20] *Ibid*.
[21] *Ibid*., fol. 551r. *Inventario dei beni nell'armadio a muro del salotto della casa di Cortona di Fra' Marsilio Tommasi* or Inventory of the items in the built-in wardrobe of the living room in Fra' Marsilio Tommasi's house in Cortona.
[22] Vimercati, 1565; *Ibid*., Ferrara, Valente Panizza stampatore ducale, 1565; *Ibid*., Venezia, Giolito de'Ferrari, 1566; *Ibid*., Venezia, Giolito de'Ferrari, 1567; *Ibid*., Venezia, Gioliti, 1584; *Ibid*., Venezia, Gioliti, 1585; *Ibid*., Venezia, Gioliti, 1586; *Ibid*., Venezia, Gioliti, 1587; *Ibid*., Venezia, Gioliti, 1590.
[23] Gallucci, 1590.
[24] Pini, 1598.
[25] Gros, 1997, p. 1193: «partes ipsius architecturae sunt tres, aedificatio, gnomonice, machinatio».
[26] Codice Madrid I, ms. 8937. See Pedretti, 1953, pp. 245-247.
[27] ASFi, *Corporazioni religiose soppresse dal Governo Francese* 132, no. 97. Indexes from 1672 to 1694, fol. 546r. *Inventario dei beni nell'armadio a muro del salotto della casa di Cortona di Fra' Marsilio Tommasi* or Inventory of the items in the built-in wardrobe of the living room in Fra' Marsilio Tommasi's house in Cortona.
[28] Ms. B, fol. xxxiiir.
[29] Cesariano, 1521, p. clxxviiir. See Burgassi, 2023.
[30] Vegetius, 1473, 4.21. See Vegetius, 2009, pp. 204-205.
[31] Martino, 2005, p. 266-267.
[32] Serlio, 1584 (NLM, *Rare Printing* CAB 9).
[33] ACM, *Super Spolio Cardinalis Verdalae*, vol. 1, fol. 21.
[34] The volume is also mentioned in Vella, 2012, p. 74.
[35] Biondo, 1542.
[36] Galea, 2000; Blondy, 2005. See Schermerhorn, 1929 and Russo, 2017.
[37] Blondy, 2005, pp. 14-15.
[38] Frommel S., Guillaume, 2019, pp. 65-66.
[39] ASMOM, GM7, fasc. 1/4 de Verdalle. Rome. *Relazione del viaggio* [***], [s.n.].
[40] *Ibid*.
[41] Sutera, 2005. Sul castello di Maniace Bares, 2011.
[42] Andrea Calamech was born in Carrara in 1524 and died in Messina in 1589. Vasari mentions him as «I shall say well that Andrea Calamech da Carrara, a very skilled sculptor, who led many figures under this Amannato. After the death of the above-mentioned Martino, he was asked to go to Messina where Fra' Giovan Agnolo had already lived and died». Calamech's name also recurs in documents related to the work on the fountain in Piazza della Signoria in Florence. See Vasari, 1878-85, vol. VI, p. 625. According to archival sources, he moved to Messina in 1563 and in 1567 he became protomastro di scultura; he remained in the same city in which he left many of his masterpieces, including the royal palace, which was badly

damaged by earthquakes in the 18th century, and the civic hospital, with almost nothing of its original project left due to several later renovations.
[43] On the topic of the Medici-inspired Renaissance in Messina, see Aricò, 2013, and on Ammannati and Florentine culture see Calafati, 2011.
[44] *Gli ultimi indipendenti*, 2007, pp. 24-28. Si veda anche: Garofalo, Scaduto, 2014, pp. 35-47.
[45] Serlio, 1540. Si veda: Frommel S., 1998.
[46] De L'Orme, 1567.
[47] Frommel S., 2005.
[48] Serlio, 1584.
[49] There is not much certain information about his life: he was born in 1520 in Birgu to a family of Sicilian origins, and in 1560 he became Chief Master of Works when the Order's fleet joined the Viceroy of Sicily in the expedition to Djerba. He obtained the position as Laparelli's assistant on the Maltese construction sites, eventually replacing him when Laparelli returned to Cortona. Cassar remained actively involved in the works with certainty until 1581, the date of the commendation certificate issued to him by Grand Master Fra' Jean de la Cassière. His will is preserved at NAM, Register 14, Notary Enrico Zarb (1588-1589), cc. 528r-533v. See Burgassi, 2022, pp. 55-56; Ellul 2004; *Gli ultimi indipendenti*, 2007; Vella Bonavita 2010.
[50] Fra' Pietro del Monte, grand master from 1568 to 1572, was originally from Monte San Savino (Arezzo, Italy). Related to Pope Julius III, he became a knight of the Langue of Italy in 1516 and distinguished himself in the Siege of Rhodes in 1522. Elected Prior of Capua in 1565, he succeeded Fra' Jean de la Valette, continuing his work until his death in 1572. Reference to Burgassi, 2022, p. 121.
[51] Serlio, 1540. Si veda: Frommel S., 1998.
[52] Si rimanda a: Modesti, 2014; Frommel S., 2005, pp. 333-352.
[53] GDSU, fols. 363r-v
[54] See Burgassi, 2022, p. 159.
[55] BAV, Urb. Lat. 833, fols. 218r-v.
[56] *Ibid*.
[57] *Ibid*.
[58] De L'Orme, 1567. De L'Orme's volume does not appear in today's lists of books, but it cannot be ruled out that it might have been included at the time.
[59] *Ibid*., p. 18.
[60] Frommel S., 2002.
[61] Particular reference is made to the unpublished letter published in Frommel S., 2005, pp. 38-39, in which Serlio was in Lyon in 1551 and 1552.
[62] De L'Orme, 1561, p. 18.
[63] Serlio, 1547-1550, fol. 28r.
[64] Serlio, 1540, p. CLI.
[65] Modesti, 2014.
[66] Serlio, 1547-1550, fols. 28r-28v.
[67] The edition of Serlio, 1584 is included in the collection in Valletta: NLM, CAB9. Concerning the Italian treatises in the Maltese Library, see the Appendix in Burgassi, 2022.
[68] Blondy, 2005, pp. 113-114.
[69] NLM, LIBR (BB.13.14).
[70] Alberti, 1550, p. 89.
[71] In the 16th century, the Auberges were palaces that were the exclusive domain of the knights, where they gathered for meals and common life according to the Langue to which they belonged: «Auberge is a name familiar to the Italians, French and Spanish, which means *ospizio* (hospice), and so are called the houses in which our friars, nationality by nationality, meet and eat together», in *Codice*, 1782, p. 423. See: Burgassi, Vanesio, 2017, pp. 163-189.
[72] Menchetti, 2001, pp. 178-189.
[73] Fra' Martin Garzez (b. 1526 - d. 1601), originally from the Langue of Aragon, was the successor of Fra' Hugues Loubenx de Verdalle and served as grand master from 1595 to 1601.
[74] Burgassi, Maniscalco, Volpiano, 2021.

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