

Tower-mansions of Crete. A multidisciplinary approach to learn built heritage

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# 3 DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN XV to XVIII Centuries

Giorgio VERDIANI (Ed.)



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## **Tower-mansions of Crete. A multidisciplinary approach to learn built heritage**

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### **Abstract**

As part of a research on Venetian and Ottoman architecture in Crete, this paper introduces a first inventory of fortified mansions and tower-houses. They formed a network controlling coasts, plains, and cultivated lands. It is hard to retrace the origin of these houses without deploying stratigraphic and chemical analysis. However, a first morphological study has identified recurring elements: a small plan with several floors and an access on the first level; embrasures, *bretèches* and putlog holes, as well as a fireplace; and a decorative sobriety. In a surveyed tower-house we find that military devices refer to a first constructive phase, while residential elements refer to a second phase. These hybrid features are common to fortified houses in the Mediterranean and beyond, which were strong elements of military and spatial organization. This vernacular and colonial heritage has got a significant value in terms of architectural models and possible reuse.

**Keywords:** Tower-mansions, architectural models, heritage, Crete.

### **1. Introduction**

Mediterranean architecture is at the center of a wide field of researches on settlements, building techniques, architectural models, and ways of living. In addition to the main monuments, minor architecture was recently retained worthy of attention, also by virtue of renovation and gentrification processes starting from the mid-20<sup>th</sup> century. As part of a broader research focused on rural house architecture of Crete during the Venetian and Ottoman periods (14<sup>th</sup>-18<sup>th</sup> c.), relying on both material evidence and written sources, this paper introduces a first study on fortified mansions. The main objective is to study how

the evolution and interaction of Venetian and Turkish models built up a hybrid architecture in a colonial context starting from middle age. In this framework, fortified mansions represent a poorly explored subject, also because of their current conditions. If large fortifications were mostly restored, becoming part of present-day cities, historic houses suffered in the best cases a modern reuse, in the worst the abandonment. The surveys showed a plurality of situations: we see dwellings incorporated in recent buildings, especially in towns, but the more remarkable remains are in the villages and the countryside. Here we find abandoned edifices

as well as mansions used as open quarries for new private buildings.

### 1.1. The state of the art

Researches on the built environment of Venetian Crete mostly focus on cities and their religious or military monuments: they rarely adopt a comparative approach about the transfer of cultural models or offer an inventory of edifices with regard to urban changes [Georgopoulou, 2011]. This topic is still little explored for the Ottoman rule, since we often ignore the history of Ottoman edifices: difficulties in mastering Ottoman sources limit researches to a comparison with Istanbul. The approach of historic buildings was also prejudiced for long by the claim of Greek Antiquity: Frankish, Venetian and Ottoman buildings were seen as foreigner. After the first missions focused on Antiquity and Byzantine remains, G. Gerola conducted a survey in 1900: his account is still a reference work, revealing Venetian architecture by means of a photographic inventory [Gerola, 1905-32]. At his time, Venetian and Turkish edifices were already suffering changes and dwellings in various conditions existed on the island. A new attitude took place in the mid-20<sup>th</sup> c., with a re-appropriation of places by means of restoration, as well as a reuse of historic towns. However, researchers call for a real recognition of Venetian and Ottoman cultural identity as for current perception of its material and symbolic values [Damaskos, Plantzos, 2008; Lock, 1989].

Studies are increasing on landscape and settlement of Venetian and Ottoman Crete [Davies, Davis, 2007; Rackham, Moody, 1996]. Venetian written sources, including contracts starting from the 14<sup>th</sup> c., prove the construction and maintenance of fortified houses by the local feudal lords in order to protect their properties from revolts, external attacks, robberies and pillages. The documents mention several kinds of fortified settlement: in addition to the castle (*castellum*), the fortified village (*castrum casale*) and the tower built by the Venetian State (*turris communis*),

we read about the private tower-house (*turris*). Tower-houses had the name of individuals or families responsible for their construction, and were at the origin of new villages. The buildings are sometimes described in the sources: they were provided with animal stables and warehouses in the basement or at the ground floor, a fireplace and living rooms upstairs, an oven and other buildings in their proximity [Gasparis, 2005]. The Cretan lords, especially in the Messara plain to the south of Candia, were allowed from the 16<sup>th</sup> c. to build residential towers in return for the maintenance of a number of soldiers and horses to face the Ottomans approaching the southern coast of Crete after the conquest of Cyprus. These towers were provided with shooting windows and were built according to a specific plan: a basement or a ground floor for food supplies; a first floor for storing supplies, and a second floor for the lord and his family [Vallianos, 2014]. The Ottoman census and judicial records, moreover, allow to observe the land distribution in Crete, in particular the coexistence of private and public land: this consequently facilitated the Ottoman *beys* in appropriating fortified houses and building up new ones [Kolovos *et al.*, 2007]. Researches on the architecture of fortified mansions of Crete are fragmentary and mostly local, and only describe some of the surviving buildings [Γιαπιτσόγλου, 2012].

## 2. A first inventory of houses

Therefore, the historiographic issue is twofold. On the one hand it is about to study the distribution of the buildings with respect to villages and major fortifications, as well as the relations between the fortified houses, and those on a territorial scale. On the other hand, an architectural and archaeological study of the surviving homes is needed, to be supported by a historical study aimed at dating buildings, as it was already stated for continental Greece and Turkey [Lock, 1989; Arel, 1993]. Fortified houses have been built since the Byzantine period and must be distinguished from towers that had a strictly military role. As first step of this interdisciplinary research, we made an

inventory and a first classification of houses according to their typology. We identified 77 buildings: 43 are ruined or disappeared, while

34 are in good conditions. Tower-houses are the most common typology: 30 edifices are ruined or disappeared, and 27 survive (Fig 1).



Fig. 1- Identified sites of fortified houses (Emma Maglio, 2015).

Among the best preserved tower-houses in the prefecture of Chania, the first is in Mouzouras (Fig. 2), near the Souda bay that was strategic under the Venetian rule. The tower was restored by the Ephorate and dates back to the 17<sup>th</sup> c. It has got a squared plan on three floors, including a windowless ground floor, and a scarp wall appearing consistent with the elevation. Defensive features are the access at the first level, loopholes and bretèches.

In the prefecture of Rethymno, the tower-house in the village of Mikro Metochi is not dated (Fig. 3). It is likely that it is built on four floors: the first had to be windowless and has a scarp wall that was added in a second phase, marked by string courses.

The aligned windows and the decorated frames prove the existence of a specific project, and perhaps of more skilled workers.



Fig.2- Tower-house in Mouzouras (Emma Maglio, 2014).



Fig.3- Tower-house in Mikro Metochi (Emma Maglio, 2014).

In the same prefecture is the village of Maroulas, where four towers survive, some of them restored and others currently abandoned. One of the rare fortified “palatial” houses of Crete, instead, belonged to the Venetian Modino’s family in the village of Roghdia, where it dominates the Iraklion bay (Fig. 4). It dates back to the 16<sup>th</sup> c. and was restored by the Ephorate. The building consists of three floors and has its original access at the first one; some arched openings were added, but the presence of loopholes and bretèches proves a defensive use. In the prefecture of Lassithi, several ruined tower-houses are in several villages desertés found starting from the 14<sup>th</sup> c. in the Venetian cadastres. Among them, the tower of the Venetian Zenone’s family dates back to the early 18<sup>th</sup> c.: it survives until the first floors, where there is a stone fireplace.



Fig. 4- Fortified house in Roghdia (Emma Maglio, 2014).

Concerning the 27 tower-houses in good conditions, some recurring elements can be observed. The buildings have a rectangular or squared plan, modest in size (from 5 to 12 m on each side), with three main levels separated by wooden ceilings; a vaulted underground level, used as warehouse or tank, is rarely found. The first level is often windowless and provided with a scarp wall. The main entrance is usually elevated: it was accessible by a wooden staircase, less often by a stone staircase and a wooden bridge. The architectural program is generally simple, with

an almost total absence of decorative elements. Even declined in a simplified way, sometimes rough, there are typical elements of military architecture: embrasures, watch towers, and bretèches at the top of the tower and above the main entrance. The masonry is made by regular stone blocks, especially in the corners and the scarp walls; elsewhere, just rough blocks alternated with tuff and clay are found. Several putlog holes are in the façades. In 20 towers, we find a stone fireplace on the first or second level, with the duct protruding from the wall, indicating the lord’s family living rooms. In many towers, the top has been replaced by a newly flat roof. The buildings are generally divided into two categories: those isolated in overriding sites, especially along the main regional streets, and those located in the heart of the villages, often with adjacent structures referring to older larger settlements. Especially when they are abandoned, however, the towers are elements of strong discontinuity in the contemporary urban fabric. We observed that the towers, mostly uninhabited, are considered as foreign objects, sometimes as disturbing the building activity and the decorum of the village. People generally keep their distance from these architectures, and rarely consider them as an added historic and heritage value for the villages.

### 3. The tower-house in Giannoudion: a case-study

The residential tower in Giannoudion, a small village in the prefecture of Rethymno, was the object of an architectural survey and a first stratigraphic analysis of the outside walls. In this paper we are introducing the first results of this study: they will be included in a more accomplished form in a monograph that is under preparation<sup>1</sup>.

#### 3.1. The territory and the village

The prefecture of Rethymno is 1500 km<sup>2</sup> wide and has 11 major municipalities, including the main city of Rethymno, in addition to many smaller villages. The map of the prefecture (Fig. 5) shows contour lines from 200 m above

sea level and indicated every 200 m, as well as the existing built-up areas and the location of the fortified and tower-houses identified during our recognition: in red are represented the ruined and disappeared buildings (10 items), whose presence was often attested until the early 20<sup>th</sup> c.; in green are towers in good conditions (9 items). All buildings are today situated in small villages: many of them are near the main routes in the bottom of the valleys linking Rethymno to the hinterland, especially with the Messara plain. The towers most likely controlled these routes as well as the plain of Rethymno. An investigation is needed to analyze visual relations between the tower-houses, as well as with the surrounding villages. For example, the fortress of Rethymno is well visible from the towers in Giannoudion and Maroulas, but these towers have no visual contact with each other.

The village of Giannoudion is situated at 118 m above sea level, 6 km South of the city of Rethymno and less than 2 km away from the village of Maroulas. The place name makes its first appearance in a Venetian cadastre (1583), before the Ottoman invasion of Rethymno of 1646. The village had 96 inhabitants in 2013.

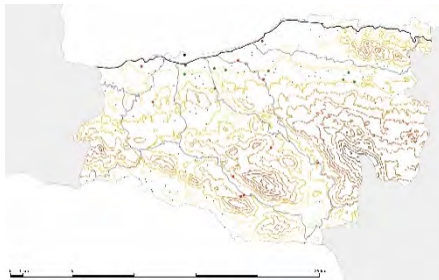


Fig. 5- The prefecture of Rethymno (Emma Maglio, 2016).

### 3.2. Architectural analysis of the building

The small tower in Giannoudion is situated on the side of the hill to the north of the village (Fig. 6). In the south façade we can still see the traces of a barrel vault, probably having connected the tower to a ruined barrel-vaulted building that stands to the east of the tower. The opening of a door in the tower above this

vault suggests the presence of a horizontal connection with the adjacent ruins. Perhaps a larger complex was situated around the tower, also including a second ruined barrel-vaulted structure that stands to the east of the tower.



Fig. 6- Tower-house in Giannoudion, west and South elevations (Emma Maglio, 2014).

There are three levels and a basement, perhaps vaulted, with an opening that is today bricked up. The levels were separated by wooden ceilings, whose a few traces of beams and corbels survive; each level has 2-3 windows on each side, dating back to different phases.

The top ceiling is today in reinforced concrete, partially damaged. The southern door is not the original access since it is not framed by jambs, nor has a real lintel (replaced by a wooden beam on the outside and a small tree trunk on the inside). The original elevated access is on the west, below the duct of the fireplace. To the northeast top of the building there are some corbels having supported a watch tower. A first analysis of the masonry allowed to recognize the use of limestone in medium-size blocks for strings, corbels, jambs, sills and lintels, and the decorated fireplace. There is also a widespread use of local yellowish fossiliferous limestone, as well as rare tuff and sandstone inserts, and spolia elements. The masonry is irregular and mixes

different forms and kinds of blocks. In the west elevation, we find three small wooden beams over the discharging arches of the windows and below the fireplace (Fig. 7).



Fig. 7- Tower-house in Giannoudion, west elevation, detail (Emma Maglio, 2014).

Some exterior surfaces are covered by a sandy plaster. Inside, we can observe several layers of white and ocher lime plaster, particularly well preserved on the eastern elevation.

The binder is mainly made of mud, but we can also see repairs with yellow mortar made of sand and mud, as well as lime and gravel elements.

The architectural survey carried out by means of an electronic total station was completed by a true-to-scale digital image rectification (Fig. 8). It was associated to the identification of stratigraphic units, in view of a hypothesis of a relative chronology for the whole building. The survey allowed to identify the main elements of active and passive defense in the tower-house.

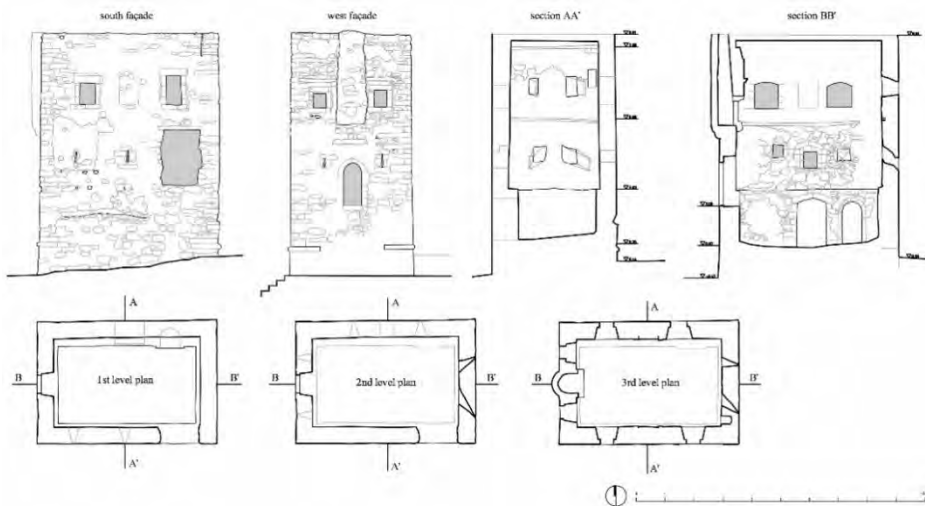


Fig. 8- Architectural survey of the tower-house, some drawings (Emma Maglio, 2016).

### 3.3. A first archaeological interpretation

The passive defense was ensured by first level above ground, probably windowless in a first phase, and by the elevated access. The devices for active protection, instead, are a watch tower, today disappeared (was it the only one?), and ten rectangular embrasures. Four of these are located on the east elevation to the second and third level above ground; the other six embrasures are on the other fronts, two on each side: those to the west are bricked up.

The east elevation, looking towards the route from Rethymno to the hinterland, was clearly the one intended for the defense.

On the second level we find two embrasures splayed downwards externally, while the two embrasures at the third level are splayed downwards internally, towards the southeast corner of the building. The four loopholes are installed in pairs; however, they do not follow a consistent pattern: they are neither aligned nor centered on the façade.

The rectangular splays are irregular and somewhere curved, and the plaster prevents any further analysis (Fig. 9).



Fig. 9- Tower-house in Giannoudion, interior east elevation (section AA' in Fig. 8) (Emma Maglio, 2014).

In the South front, the two embrasures at the second level are horizontal, and it is likely that a third loophole with the same features was replaced by the ruined door. In the North elevation, the two embrasures at the second level had to defend the central window at the same level: this would seem confirmed by the fact that they are horizontal and splayed internally. Similarly, it is likely that the loopholes on the west front, today bricked up, defended the main access, but here too the plaster prevents to observe the direction of the splays. All inspected loopholes have a triangular plan, but the measure of the angles is approximate. They were arranged for soldiers armed with missile weapons from a kneeling position. The absence of signs of enlargement suggests that even during the Ottoman rule throwing weapons continued to be used, taking into account that the Ottoman arches were shorter compared to the Western ones, and that larger embrasures were needed to use guns. No traces of spatial subdivision

are in the building. At the second level, the small window flanked by loopholes probably lighted up a warehouse and was also involved in the defense. At the third level there was the real mansion of the lord: we can see a fireplace made with sculpted blocks of white soft limestone. The couples of rectangular windows of the North and South fronts replaced former windows opened up at the center of the façades: one of the current windows reused a part of the jambs of the former window, and we can see traces of reparations in the masonry (Fig. 10, 11).



Fig. 10- Tower-house in Giannoudion, exterior North façade, detail (Emma Maglio, 2014).



Fig. 11- Tower-house in Giannoudion, interior North façade, detail (Emma Maglio, 2014).

All these windows are rectangular, but the interior lintel blocks on the North elevation have an angled form: this can be frequently found in rural houses of the island. A second type of windows is on the west elevation: two quadrangular openings flanking the fireplace make up a homogeneous whole with it (this is confirmed by the presence of wooden lintels), probably contemporary to the windows placed at the same level on the other façades.



This first analysis thus allows to state that the tower was built for military purposes, with the top level intended as a dwelling. In a second phase, the residential use probably took over, without giving up the defensive function. In a further step, the tower-house was probably associated with other non-defensive buildings.

#### 4. Conclusions

The analysis of the case-study, with respect to a first study of the inventory of houses, opens to various issues. The first deals with the dating of the buildings, which is unknown for almost all of them, and with Venetian and Ottoman architectural models that were surely adapted to local skills and materials. A relative chronology of a sample of mansions will be proposed after removing plaster, carrying out localized surveys and taking samples of

building material. A second question, which requires a study of written sources, concerns the buildings' relations with the villages, the territorial routes and the other fortifications on the island: fortified houses were part of a system put in place by both colonial and local powers for land government as well as landscape construction. It is definitely about to study fortified houses and tower-houses as part of a Mediterranean built heritage, for which an urgent sustainable conservation strategy has to be found.

#### Notes

<sup>1</sup> The book will collect the proceedings of two international workshops organized in the framework of a research project coordinated by E. Maglio and N. Faucherre (Aix-Marseille University, 2013-2014).

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