

4 DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN XV to XVIII Centuries

Giorgio VERDIANI (Ed.)



DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN

XV TO XVIII CENTURIES

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XV TO XVIII CENTURIES

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Giorgio Verdiani

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Stratification and metamorphosis of an urban landscape: the ancient fortification of Sorrento

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Abstract

The ancient walls of Sorrento represent only a small portion of a much larger fortification that has marked the history of the city since its foundation. The first defensive fence of the tuff terrace was closely linked to the Roman penetration in the Sarno valley. Over the centuries, the fortification has undergone significant changes, starting with the construction of towers to defend the city gates in the Middle Ages until the intervention on the south side in 1558 sponsored by the Spanish viceroy Don Pedro de Toledo after the Saracen invasion and accomplished by the engineer Pedro Trevigno. The project determined the rebuilding of the southern curtain and the addition of four bastions – one cuneiform and three flat – closely adapted to the orographic characteristics of the perimeter. This portion of the fortification is the only surviving part to the significant urban transformations that affected the city since the nineteenth century.

Keywords: Urban stratifications, Sorrento Viceroyal plan, relationships between city development and ancient infrastructure.

1. Introduction

The city of Sorrento represents nowadays a highly stratified place in which it is possible to recognize the overlapping of constructive phases and components of the urban fabric belonging to different epochs, from the Antiquity to the Modern Age, from the nineteenth-century transformations to the more recent ones. Despite the complexity and the richness of this palimpsest, in some cases, its perception appears more difficult because of the damages and of the alterations due to the works carried out starting from the second half of the Nineteenth century. These latter, in fact, caused the progressive modification of the

urban shape and the consequent obliteration of a large part of the architectural and environmental characters of the city.

These transformations, which also involved the fortification system, provoked the loss of the ancient castle, of two of the five gates, and of a consistent portion of the city walls.

The current consistency of the fortifications of Sorrento represents, therefore, only a part of a wider system which has been designed according to the particular orography of the site and modified over the centuries in order to be adapted to new defensive needs.



Fig. 1- Sorrento. Aerial view of the historical centre.

2. The defense of the site between the Antiquity and the Modern Age

Equipped with natural barriers because of the presence of deep ravines on three of the four sides towards the inland and of a high cliff overlooking the sea on the northern front, the site was chosen by the founders of the first Osco-Greek settlement precisely because of this «insular configuration» which ensured a certain level of protection [Pane, 1955]. The primitive urban shape—still recognizable despite the alterations—was designed according to the Hippodamian implant and had to be surrounded with a first and more ancient fortification system which probably followed the perimeter of the ravines [Beloch 1879; Mingazzini-Pfister, 1946; Pane 1955]. Taking into account the orographic constraints of the site it is possible to suppose that these city-walls – probably dated back to the IV century B.C. [Mingazzini-Pfister, 1946] – coincided to the layout of the sixteenth-century structures. Several traces of the ancient isodomic masonry have been partially found, in fact, under the

modern fortifications in correspondence of the southern gate, *Porta di Parsano Nuovo*, of the western side of the walls and of the *Porta di Marina Grande* towards the sea [Mingazzini-Pfister, 1946].

The ancient defensive system remained largely unchanged until the Medieval Age. The lack of archival and bibliographical sources correlated to this period and to the Norman Age does not allow to identify the eventual consistency of works of improvement of the fortifications. However, it is possible to suppose that some interventions of maintenance have been realized. According to some sources, during the Angevin Age, in 1272, a castle was built in correspondence of the western gate of the city, *Porta di Piano* [Canzano Avarna, 1880]. Other authors, instead, refer to 1459 as a possible date for the foundation, or the re-foundation, of the defensive structure [Fasulo, 1895; Filangieri di Candida 1916], whose layout appears to be similar to other Aragonese fortified castles. The conservation of the

fortification system had to be among the aims of the Angevin government [Capasso, 1866] and of the Aragonese one if in 1482 Ferdinand I reconfirmed to the city the right of *quartuccio* for the necessary repairs of the walls [Fasulo, 1906]. However only during the Spanish Vicereign the fortifications of Sorrento had undergone to a general intervention of renovation and improvement according to renewed needs of defense.

3. The Viceroyal plan for the protection of the city. Typologies, building techniques and materials of the fortification system

What today remains of the fortified system of Sorrento, mainly located in correspondence of the southern front, represents a portion of the structures built within the Viceroyal plan of protection of the site. Starting from the third decade of the Sixteenth century, in fact, the intensification of the Saracen attacks made indispensable the improvement of the coastal defenses which was carried out according to the plan developed by the viceroy Pedro de Toledo. At the beginning of the Sixteenth century the defenses of the city had to appear more vulnerable because of the frequent conflicts between the Angevin and the Aragonese dynasties occurred during the previous century [Capasso, 866]. For this reason and taking into account the risk of the new attacks, the need to strengthen the defensive system of the city seemed more urgent. However, the project of renovation of the fortifications, already fielded in 1537 [Fasulo, 1906], and organized by the viceroy in 1548 resorting to the citizens' support¹, was carried out starting from the 1551, but only in the 1558, after the Turkish invasion of Sorrento – which was probably favored by the obsolescence of the walls – the works proceeded more quickly and were concluded in 1561 [Pane 1955]. The project, whose realization was assigned to the engineer Pedro Trevigno (or Treviño) [Di Leva, 1981], was characterized by works of restoration and improvement of the preexistent structures on the western and eastern fronts—which led also to the conservation of the castle included in the

new fortified perimeter – and of definition of new defensive structures on the more vulnerable southern side. In all probability, these latter followed the layout of the more ancient implant. As in the case of the Viceroyal coastal towers, modified in their typologies with respect to the Angevin ones, and equipped with heavy artillery in order to resist to the new forms of attack, even the fortifications were realized «according to the custom of those times with bastions and curtains» [Capasso, 1866]. Thus, on the southern front – the only one still completely visible – whose limit was partially characterized by the presence of the ravine, Trevigno realized a system of four pentagonal bastions connected by thick curtain walls. The layout of the Viceroyal walls appears clearly described in several sixteenth and eighteenth-century iconographic sources as in the case of *La Città di Sorrento in piano*, which, dated back to 1570-1580, represents one of the first testimony of the new defensive system [Di Leva, 1997; Astarita, 2006].

This anonymous illustration documents, in fact, the urban and landscape characters of the city during the second half of the sixteenth century, underlining the configuration of the fortified perimeter. In addition are clearly readable the deep ravines and the four gates of the city – *Porta di Piano*, on the east, *Porta di Parsano Vecchio* or *di San Baccolo* on the west, each one with their own bridges; *Porta della Marina Piccola* and *Porta della Marina Grande*. Even if more schematic, the view published by Giovan Battista Pacichelli in 1703 gives significant information on the typology of the Viceroyal fortified implant and on the characters of those defensive garrisons. In particular, the representation shows the configuration of the western and eastern fronts, demolished during the nineteenth-century transformations, highlighting the relation between the restored curtains, the gates, the Aragonese castle and the underlying ravines. Furthermore, the bastions on the southern front, although erroneously reduced to three, appear equipped with cantilever entry boxes placed in correspondence of the corners.



Fig. 2- Unknown, *Sorrento*, 1703, detail (Pacichelli, 1703).

According to the Viceroyal constructive techniques, each of the pentagonal bastions – one cuneiform (*San Valerio*) and three flat – was designed with backward sides equipped with *machicolations* whose lines of fire were adapted to defend the adjacent curtains and gates [Di Leva, 1987]. In addition, Trevigno showed a significant ability in the adaptation of the defensive system to the irregularities of the perimeter always complying with the basic geometrical rules. Both the curtains and the bastions – characterized by sloping profiles and toric stringcourses – were built using blocks of the local grey tuff, arranged in pseudo-regular rows – approximation, this latter, probably due to the rapidity of the construction, completed within only three years (1558-1561), which, in the case of the *Porta della Marina Grande*, had determined the presence of not slaked lime in the masonries built upon the Greek structures.

The corners of the bastions were characterized by bigger and more regular grey tuff blocks and in correspondence of the upper part of these latter, three tuff shelves – clearly recognizable in the nineteenth century iconography, and today partially visible after the recent restoration works – supported the sentry boxes. Only one of the four bastions of the southern front – *Sant'Antonino*, the closest to the *Porta di Parsano Nuovo*, built in 1745 upon the structures of the Greek gate – had indoor spaces; the others – *San Valerio*, *Sant'Attanasio* and *San Renato* – consisted only of the perimetral masonries and, on the inner sides, of the buttresses and arches which supported the upper walkway.

4. From the seventieth-century works to the nineteenth-century transformations

Following the massive rebuilding took place in the Viceroyal era, there were no further intervention programs for the fortification of Sorrento planned by the central authority. During the Seventeenth century, the Spanish viceroyalty dismissed defensive ambitions since the time of Turkish invasions seemed once to an end and there were no other organized armies to threaten the Reign [Pessolano, 2008]. The interventions conducted in those years on the Sorrento walls had mostly maintenance purposes, according to the reports of Pietro Talamo², cashier of the fortification of Sorrento; only on few occasions there were urgent interventions to deal with impending attacks. One of them was the case of the siege of the city by Giovanni Grillo in 1648; in fact, the viceroy sent in Sorrento in the previous year the field marshal Alfonso Filamarino, who «si pose a fortificarla alla meglio» [Fasulo, 1906].

With the ascent to the throne of the Bourbon in the 18th century, the defensive situation of the small peninsular possession did not undergo significant changes. Also in this case the lack of interest of the monarchy towards the defense of Sorrento was probably due to the adverse topography of the city coast and to the lack of roads linking up with Naples [Pessolano, 2008]. A testimony of the Bourbon military policies is the request of Sorrento in 1750 for a military district, remained unanswered by the crown [Fasulo, 1906]. In the late 18th century the city was under a new siege, whose results will mark the fate of its fortification, and, generally, of its urban

structure. In 1799 Sorrento suffered the punitive expedition of the French army to put down a local uprising which damaged part of the walls and the castle [Fasulo, 1906].



Fig. 3- P. Correale, *La porta di San Baccolo o di Parsano Vecchio*, second half of the 19th century (Cariello, 2000).

The defensive system decay, which for three centuries had not received significant attention by the central government, represented by then the alibi for the local authorities to carry out a gradual dismantling; in fact it conceals far more profound needs for modernization of the road network and for adaptation to the newborn tourist vocation, which, combined with the gradual decline of the defensive need, will be put before the conservation of the military architectural heritage that was not recognized as a value to preserve.

Among the most significant episodes of this cultural climate there are the works for the construction of the *Corso Duomo* which began around 1864: the opening of the new straight road answered to the need to connect the Castellammare-Sorrento road, whose realization took place between 1832 and 1839, with the road leading to Massa Lubrense. To accomplish this goal it seemed appropriate to cut through the historic urban core, despite the first idea to build the new road behind the town. This decision led, in addition to the demolition of some blocks of the Hippodamian plant of Sorrento, to the loss of a significant portion of the fortification which was still in the early Nineteenth century almost unchanged in its viceregal structure. In this period, in fact, the Castle (1843), the walls close to it (1844) and the main access, *Porta del Piano* (1866)³, were demolished. In addition, new tourist requirements also led to a reconfiguration of

the *largo* near by the Castle, now disfigured by the loss of the features of its eastern front. The will to dedicate the square to Torquato Tasso, Sorrento poet, represented the key to the next enhancements that, between 1870 and 1900, led to the current configuration of the main square of the city. These changes, combined with the opening in 1898 of *Via Luigi de Maio* which connected the port to the village above it, led to the filling of the downstream section of the *Mills' Valley*, one of the ravines that for centuries has characterized the topography of the site and the defensive system. A similar fate interested the western side of the fortification, with the demolition in 1865 of the *Porta di Parsano Vecchio*, the access to the city from Massa Lubrense. The stretch of walls between the gate and the *San Valerio* bastion was then incorporated in a public housing block in 1894.



Fig. 4- G. Brogi, *Sant'Atanasio and San Renato bastions*, 1890 (Filangieri, 1916).

The first project, designed by the engineer Enrico Smith, foresaw the leaning of the building against the walls stretch between *San Valerio* and *Sant'Antonino* bastions and the construction of a road connecting with *Corso Duomo* which would involve the demolition of the *San Valerio* bastion, that the designer saw as «an antiquated tuff stone factory»; however economic reasons made the intervention unfeasible, saving the defensive structure from destruction [Della Rocca-Russo, 2001]. Likewise, the curtain between *San Valerio* and *Sant'Antonino* bastions was obliterated by a late nineteenth-century factory.

5. The fortification between enhancement proposals and restorations

The destructive attitude of the urban transformations in Nineteenth century stimulated the deep reflection of Roberto Pane who, being in charge of two committees for the General Plan of Sorrento between 1946 and 1963, gave a remarkable contribution to the birth of a sensitive conscience to conservation issues. The 1955 plan proposal combined the physiological needs of city development with the preservation of the urban landscape [Pane, 1955]. One of the most interesting aspects was the construction of a ring road that, from the railway, would lead along the ravine and the walls and would rejoin at its western end the *Corso Italia* (previously *Corso Duomo*) with the aim of bringing the traffic outside the old core. During the working phase, the committee collided with the local administration. Among the main reasons of dissent there was the will of the local authorities to make suitable for building the area downstream of the walls and to fill the *Mills' Valley*, all proposals rejected by the commission because of the existence on the ravine of a *landscape registration* since 1927. Despite the outcomes of two ministerial conferences, all the efforts of Pane and the committee were useless because in 1965 the city administration rejected the plan and in 1969 entrusted the task to create a new urban plan. This latter included a resizing of the historic core which no longer belonged the walls and the ravine, proposing once again its filling. For these reasons the plan was not accepted by the competent authorities who imposed the expansion of the perimeter of the old town [D'Orta, 2008].

If the critical reflections of the higher cultural environments, embodied by Roberto Pane, had already reached in the first half of the Twentieth century a marked sensibility towards the historical built heritage, the same thing cannot be said as regard to the local community's point of view. Within this climate arises, however, the local authority's desire to restore the fortification, giving in 1971 the task of drawing a restoration project

to the architect Arnaldo Venditti. Following a long study, the architect and historian of architecture drew up a general project in which explicit the intervention intent, summarized in the preservation of the material consistency and the re-use of the vicerojal military architecture. The application of these proposals had to go beyond the liberation of the fortification by accretions adjacent to the walls. It was also necessary to stem the tampering, such as the opening of windows, and misuse occurred. At the project time *Sant'Antonino* bastion was used as a warehouse of the local waste management, as well as illegally occupied by the inhabitants of the neighborhood, perpetrating a practice already found in a 1906 dispute between the municipality and the owner of a property near the bastion which had occupied part of the interiors for his cellar⁴. Similarly the buttresses and arches characterizing the inner side of the fortification were illegally occupied as agricultural storage, presenting considerable tampering. At the general plan, approved in 1981, followed an executive planning phase divided into seven excerpts, developing between 1984 and 2010 only a part of the interventions. The works planned for the surviving episodes on north-west part of the fortification and on the south section above the ravine turned out to be unworkable for the massive amount of necessary tests, being this parts sheltered by overhanging tuff cliffs.



Fig. 5– De Luca, East front of *Sant'Antonino* bastion, 1920, detail (Fiorentino, 1991).

Thus, the static reinforcement of the stonework was carried out through the removal of the old mortar and the filling of a sand and cement mixture to strengthen the inner core. The disconnected blocks of the external face were removed and put back with cement

mortar. The missing blocks were replaced with others in new local grey tuff of different shape and finishing. Regarding the recovery of the bastion's corners, the intervention involved an *anastylosis* process of the disconnected blocks replaced with cement mortar and metallic connections. Finally, for the strengthening of the buttresses and of the arches, representing the walkway support structure, it proceeded in the same way as previously described for the recovery of the facing, matching, however, armed perforations to restore solidity in the connections between buttresses and walls.

From the fruition point of view, the project involves the recovery of the walkway between *San Valerio* and *Sant'Attanasio* bastions. The aim of this process was to continue along the stretch above the ravine. The access points to the walkway, created with a concrete screed with terracotta flooring, are conceived by the addition of a steel structure stairs, next to the *San Valerio* bastion, and by the recovery of the viceregal stairs located at the back of *Sant'Antonino* bastion. Finally, in the indoor spaces of this bastion, Venditti designed information and museum activities and a looking point on the upper level. Because of economic difficulties the path was partially realized and nowadays only the portion between *San Valerio* and *Sant'Antonino* bastions is walkable. A second path is then provided in the outside, along *Via degli Aranci*. The architect planned a lowered green belt, suggesting the ancient moat, and to cut down the orange trees which make difficult to see the bastions. In the area between *San Valerio* and *Sant'Antonino* bastions, after the demolition of the existing buildings, it was expected to create a public garden designed by seven grassy fields. In the designer's intentions, this path had to represent the start for a wider work that includes the reclamation of the *Mills' Valley* and the creation of a "park of the walls" descending from *Via degli Aranci* to the bottom of the ravine, by creating a «romantic path between the green and tuff rocks». Unfortunately, this part of the project was as well unworkable for the lack of funds.

Also for the functional part of the project economic reasons led to failure the designer's intentions: the unfeasibility of the planned demolitions made the area outside the walls, even if cleaned from waste and reorganized with a provisional green area, not yet able to make the best of the pre-existence behind according to the project central idea⁵.



Fig. 6 – Sorrento. *Sant'Antonino* bastion.

6. Conclusions

The physical and perceptive relation between what remains of the fortification system and the contemporary city of Sorrento appears heavily weakened by the alterations due to the demolitions carried out starting from the first half of the Nineteenth century. Transformations, these latter, that if, on one hand, have deleted a significant part of the historical stratifications of the site, on the other hand, have largely compromised the possibility of understanding the complexity of a centuries-old palimpsest in which archeological, historical and natural components were tightly linked. If the researches have given back relevant information on the consistency of the heritage, and the recent restoration works have partly reconfigured its characters – sometimes resorting to intervention rather invasive – only the necessary dissemination of the knowledge, together with a careful conservation and a conscientious valorization can return the possibility of recognizing the real value of these architectures. In particular, the southern section of the walls, even if has enjoyed of more attentions for the simplest possibility of intervention, is still waiting – like the other surviving parts of the fortification – an epilogue that can ensure a broader preservation

and fruition, respecting its material consistency, its historical value and its symbiotic relationship with the environment, halfway between nature and city.

Notes

(1) Naples' State Archive (ASNA), *Collaterale Partium*, vol. 19, fol. 82. See also Strazzullo, 1992.

(2) ASNA, *Real Camera della Sommaria, Dipendenze*, I serie, b. 178 II, fasc. 14, «Conto delle fortificazioni di Sorrento (1692-1693)».

(3) Sorrento's Historical Municipal Archive (ACS), *Delibera comunale* del 18 novembre 1861.

(4) ASNA, *Corte d'Appello, Perizie*, b. 155, fasc. 37.

(5) ACS, *Progetto di restauro delle antiche mura*, architetto Arnaldo Venditti, 1984-2010.

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