

PROCESSUAL AND TYPO-MORPHOLOGICAL READING METHOD.THE CASE OF BIRGU, MALTA.

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ABSTRACT

This paper focuses on a precise analysis method about the study of the urban form, through the typological and processual reading of urban fabrics and buildings that compose it. Studying the urban transformations that took place during the course of time, in a central Mediterranean nodal place, allows us to understand the ways in which the contributions of each new culture have been introduced and involved in the accumulation process, material and immaterial, that is typical of an isolated/insular territory.

The island of Malta, for its particular position, has always been a singular point, a crossroads of cultural exchanges in the Mediterranean. At the same time, isolation contributed to maintaining and conserving the characteristics of places and materials that man transformed. The interest of this research is about the way of transfer and sedimentation of constructive experiences that merge between them and finally find, in the island, a new place of experimentation.

The case study is the city of Birgu, located in the Grand Harbor of Malta. Reconstructing the formative phases of the city means investigating the way in which the indigenous constructive culture has accepted external needs and habits, merging into a new urban unity. It is interesting because it presents singular episodes related, for example, to the development and adoption of the *Palazzo* type inserted into the masonry urban fabric. It presents element of interest for the urban changes caused by the bombardment trauma occurred during the World War II too.

Therefore, through the reading of the formative process of routes/paths, through the identification of urban polarities, through the recognition of the building typology and finally through the study of the fusion and transformation process of urban fabrics, it is possible to prepare a base of knowledge useful to the future project, to the successive and physiological transformations that the city will necessarily have to undergo.

KEYWORDS: Urban Form, Process, Reading Method, Typo-Morphological, Malta.

INTRODUCTION

The contents of this essay are part of a wider research on the relationship between building types and urban fabric, concerning the area of the Grand Harbur in Malta. The analysis method is related to the typo-morphological school: the 'operating' history, the history that helps to compose the basis of the events through which the community takes shape, gives form to the architecture that it produces. The formation of a city, and in particular of a Mediterranean city, cannot be separated from the study of the main historical events that have characterized its phases of evolution. The historical events together with the data recovered in different archives, relating to the buildings and the transformations they have undergone over time, allow the conjectural and logical reconstruction, instrumentally and appropriately divided into different phases, of the city formative evolution. The application of this method to the city of Birgu in Malta produced interesting, albeit partial, results which try to hypothesize the formative phases of this city.

HISTORY OF BIRGU, VICTORIOUS CITY

The existence of the 'Borgo a mare' (Castrum Maris) is known as early as before 1530, the date of the arrival of the Knights of the Order of St. John in Malta, as a fishing village and also as a small port city. Following the arrival of the Order on the island and the conspicuous fortification and rebuilding works, the village was renamed 'Città Nuova', then called 'Vittoriosa City' following the events of the siege of the Turks in 1565.

Birgu is spread over a peninsula just 800 meters long and has a maximum width of 400 meters. Without considering the area of the fort, one could associate the shape of the promontory of this settlement with an isosceles triangle. To the north, on the Manderaggio side, it faces Calcara Creek, while to the south the St. Lawrence Valley overlooks the Dockyard Creek. The highest points of this area are about 25/30 meters above sea level (St. Philip Hill and Cavalier Hill).

The formation of one of the oldest cities in Malta on a small peninsula is witnessed, since ancient times, by the presence of the 'Forte a Mare', later called 'Forte Sant'Angelo', and is suggested by the hidden position inside a natural reservoir, ideal for sheltering galleys, sailors and merchandise. The Arabs, who called this port Port of the Galleys, were the first to build on the most extreme point of the Birgu peninsula, sheltered by the natural limit of the sea, a castle with

stone blocks obtained from the remains of an ancient Phoenician temple dedicated to the deity Astarte, later dedicated to Juno by the Romans. The castle itself will be known as 'Castrum Maris', 'Castello a Mare' or 'la Rocca'. The village, sheltered from this fortification, was named the 'Borgo del Castello', hence the name Birgu, which indicates a city or neighborhood built near a guard castle (from the Maltese Borg). The peculiarity of the promontory on which the castle stands resides in its ability to control a wide visual range of the harbour invasion system for the sighting of possible enemy incursions.

The scarce attention of the ancient authors to the events that involved this settlement, at least until the arrival of the Knights, helped to consolidate in the historiographical tradition the opinion that this place was a fishing village built on the slopes of a large and imposing fortification, in which the population took refuge in case of pirate raids. In fact, beyond the objective lack of documents that can testify and verify this news, it is clear that this is the most protected and therefore adequate area of the whole island for ships entering the port. From archaeological finds it is thought that this area was inhabited long before the Romans conquered Carthage and the Maltese archipelago during the Punic wars of 216 - 218 BC.

All historical information prior to 1530, documented and related to this settlement, actually concerns the fort and its castellan, imposed from time to time by the dominant dynasties, and the diocese of the village: many lords of the castle were responsible for the security of the Great Port until the arrival of the Knights.

After the defeat of the Arabs (in 1090) by the Normans, and then with the re-conversion of the population to the Catholic religion, the church dedicated to the Mother of God and then to the Nativity of

the Virgin was built, carved into the rock of the fort. According to some historians, this church was one of the oldest in the whole island, the first diocese in the Maltese islands together with that of Mdina, the ancient capital. During the period of Angevin domination substantial works were carried out inside and outside the castle (and above all on the church of Santa Maria and Sant 'Angelo).

After the occupation of the islands by the Aragonese in 1283, the church of San Lorenzo a mare, dedicated to the Aragonese martyr saint, subsidized by the Spanish kings, was built by the Spanish sailors. In this period the fort was renamed 'di Sant'angelo', perhaps in honor of the Count Angelo de Melfi who had ruled the island since 1352. Furthermore, the population reaches 4000 inhabitants and the expansion of the Borgo begins, probably facilitated by the strategic

position of the port and by the shelter that offered the fort in case of pirate raids. Inside the castle was built the house of the castellan, in Sicilian-Norman style.

When Malta passes to the Catalan-Aragonese kingdom, from 1392 to 1395, the Maltese baronial families oppose the new sovereigns; from the fort of Birgu the castellan opposed to the new kingdom, but the last resistance to the new domination are conquered. Fernando de Podio becomes the new lord of the castle. The chaplain of Castrum Maris was assigned to the chaplain of King Bernard Ginestre, while the governor of Sicily had the count Antonio Ventimiglia imprisoned in the fort of Birgu, where he died in 1413. In 1423 a rebellion started in Gozo and spread throughout the island, in Birgu the castellan Monroy and his wife remain stranded in the Castrum Maris, but in 1427 the siege of Monroy ends. From 1430 the Castellania del Forte belongs to the de Nava family. The last Aragonese lord of castes 'de Nava', who built a chapel dedicated to Saint Anne, built inside the fort before the arrival of the Knights, had to leave it to the Order's Grand Master L'Isle Adam, who on 26 October 1530 arrived in Malta and took up residence in the de Nava palace inside the Fort.

Seven years after the expulsion from Rhodes by Suleiman the Magnificent, the Order of the Knights of St. John settled in the Maltese islands on the initiative of Pope Clement VII and Emperor Charles V. According to many historians and writers members of the Order and not, among which Bosio, Abela, Quintinus and Slade, the conditions of Malta at that time were miserable and bleak and the lifestyle of its inhabitants was compared to the troglodytes: "placed mainly in poor huts, in need of almost all the things necessary for life, cooking their food with dried manure and like the knights expressed in their Report, certainly excited by the fresh remembrance of their fertile Rhodes, whatever they observed, caused them disgust". In fact, Malta appears to many Knights as "a rock in the middle of the sea, far from help and every comfort". According to a Maltese writer of the nineteenth century these 'assertions' were caused not only by the hostility of some French members of the Order towards Charles V, who wanted to show that the donation of the archipelago to the Knights was not of any value, but also by the inability of the Knights to resign themselves to the idea of never returning to Rhodes.

The Clients report that Malta had a single large fortress opposite the harbor mouth, Forte Sant'Angelo, which was half in a state of decay. Although the castle occupied a high position, it could easily be

struck and conquered by the side of a small village inhabited solely by navigators. The fort, which had about 40 rooms, had been identified in the area of the Collacchio for the Knights, within which the Auberges of the various 'languages' could have been placed. But it was too small, so it only became the seat of the Grand Master.

According to Jean Quintin, the settlement of Birgu was dug into the rock, a practice that would be consolidated with the Arabs: this is conceivable through a comparison with Sicily, where the greater availability of documentary material and better archaeological research have contributed to establish the existence of different troglodyte communities with which the Normans came into contact right at the beginning of their Sicilian adventure. Also, in Birgu, outside the walls of the Castello a Mare on the Porto Grande, where the Knights of St. John established their headquarters in 1530, there were fields to harvest among the buildings, whose misery caused dismay to Jean Quintin of which he wrote in 1536.

The historical sources agree in affirming that in 1530, at the arrival of the Knights, Birgu is nothing but a small village of small houses aggregated along the path parallel to the coastline reaching the walls of the small fort, characterized by small winding roads. The Knights of St. John preferred the ancient capital Mdina for their settlement, but this important center was not coastal and therefore would not have allowed them to carry out the tasks proper to a maritime military order and the role of defenders of Christianity in the Mediterranean.

The modernization of the village, which however maintained its structure, began in 1531: the first construction ordered by the Grand Master was the walls that would have enclosed Birgu, flanked by small ramparts; the Grand Master also lowered the moat between the peninsula and the fort. Very important was the positioning of the shelter of the war galleys on the seafront that goes from Forte Sant'Angelo to the church of San Lorenzo, the first attempt to develop the waterfront. In these early years, the hospital, armory, Castellania and many Auberges were built. The Knights acquired the existing buildings and transformed them enriching the facades and modifying the interiors.

Between 1530 and 1571, the year in which the Knights moved to Valletta, Birgu underwent several changes: the church of San Lorenzo became the conventual church of the order; the convent of San Domenico was used as a parish church until the church of San Giovanni was built in Valletta; Piccini and Ferramolino were called from

Italy to restore and fortify the castle of Sant'Angelo and the Old City; the construction of the Castellania on the main road began, then transformed into the Palace of the Inquisitor in the current conformation dating back to 1767; the foundation stone of the Infirmary was laid, in front of Monte San Salvatore, which from 1652 was transformed into the convent of Santa Scolastica; the weapons depot was built, which in 1880 the English turned into a naval hospital; the Bishop's Palace was built.

The request for property was in excess, as the Knights from Rhodes had also brought servitude and workers with them and for this reason the Court of the Office of the Houses was established with the task of regulating the rents of houses and shops. Bosio (Bosio, 1602), in a paper of the time, asserted that there were several dwellings, but not sufficient for the whole population and many people were forced to settle initially in tents. According to another document of the time, when the Knights arrived at Birgu they found only 150 houses, but in just 3 years more than 500 houses were built on the peninsula outside the walls. The demographic increase placed the need to find a new city: L'Isla, later known as Seneglea.

In 1565, from May to September the Turks attacked Malta as the island hosting the Gerosolimitano Order, in order to eliminate the "threat" of the Knights who opposed the Saracen raids and create a base for the invasion of Italy. This war event, known as "The Great Siege of Malta" and widely documented by the authors of the time including Matteo Perez d'Aleccio and Francisco Balbi da Correggio, took place between the Grand Harbor and the port of Marsamuscetto. Birgu and Forte Sant'Angelo suffered several attacks. In "The Great Siege: Malta 1565" E. Bradford says that following the siege most of the village was demolished, and the narrow and winding streets were full of damaged buildings "not a single house was free of damage" and rubble. Even the walls built at the arrival of the Knights suffered several damages from the bombings of the Turks. Moreover, for defensive purposes, the Knights themselves demolished "everything that was outside the walls of Birgu and Mdina", in order to allow any shelter to the Turks who were besieging the island. At the end of the conflict, won by the Knights led by Grand Master Jean Parisot de La Vallette, the three cities of the Grand Harbor were renamed Civitas Vittoriosa (Birgu), Civitas Invicta (Seneglea) and Cospicua (Bormla). The sword and dagger of the valiant Grand Master were kept in the Greek church located on the main path that connects the main door to the Fort, in memory of the events of this conflict, then stolen by the French when

they conquered Malta in 1798.

In 1800 the Maltese, rebelling against the French, invoked the help of the English, their rivals in the conquest of the route to Egypt. During the occupation phase by the English, Vittoriosa maintained the urban structure formed on the structure of the medieval city but, following the conversion of the Fort in a naval base, the entire seafront facing Senglea was redeveloped with an important project by William Scamp, which transforms the old Galee refuge into an imposing building: the Bakery. The city is transformed with the introduction of numerous palaces and churches; interventions are attempted to contain the situation of the degraded poor neighborhoods (in the area of St. Philip Hill, in the Mandraggio area and near the convent of San Domenico) and of the Jewish ghetto in the Via del Vecchio Palazzo del Governatore.

In 1940 the Dockyard Creek became an outpost of the Royal Navy, which is why during the Second World War the three cities and the surrounding port areas were the target of almost daily bombings by the Italian-German aviation from 1941 to 1943. As reported by Joseph Micallef in "When Malta stood alone", a detailed description of all the war events that affected Malta during the great conflict, there was very serious damage and a huge bloodshed. Much of the built-up area of the peninsula on St. Philip Hill, the Mandraggio area, the church of St. Anthony, part of the church of San Lorenzo, part of the Bakery, the Auberge d'Italie and the adjoining church of Santa Caterina, the old prisons are demolished or seriously damaged, because they are important places for the Royal Navy's activities. Most of the population that abandoned Vittoriosa and the other port cities during the conflict, never returned to the same place, but preferred to settle in new coastal areas further north, such as Sliema and San Julians.

After the end of the conflict, the Maltese government, thanks to A. Harrison and R. Hubbard, drawn up a report and a plan for the reconstruction of Valletta and the three cities heavily affected by war damage. This report is based on surveys of the existing conditions of a large circular area that incorporates the Grand Harbor and also analyzes its demographic aspect. An impressive figure that emerges is related to the population of Birgu which has always been exponentially increasing since the arrival of the Knights up to 1939. Furthermore, this important document reports the different proposals for reconstruction of the affected areas in a detailed manner, useful for understanding the transformations made since the 1950s on the

peninsula.

Despite the reconstructions of the second half of the twentieth century, the population density is no longer grown and still many houses in the Collacchio area are uninhabited and in a state of neglect. Recently all the Dockyard Creek has been the subject of the project "Cottonera waterfront" aimed at the recovery of the historic buildings of the area of the Three Cities and which led to the construction of the marina for "superyacht", the Casino, restaurants and some modern residences on the Vittoriosa pier.

FORMATIVE PHASES: HYPOTHESIS OF BIRGU URBAN FABRIC TRANSFORMATION

The hypothetical phases of Birgu urban formation over time have been reconstructed starting from the reading of the morphology of the territory and from the analysis of the urban fabric carried out on the cadastral map dating back to the period before the bombing of the Second World War. The study of the aggregate, and its temporal structuring, was performed on the cadastral.

The reference cartography was created on the basis of information obtained from documents coming from: archives of the CD Office and Public Works Department of the Maltese government, government offices that deals with public works in Malta; the Malta State Archive "Santo Spirito"; the "Valletta and the Three Cities" report written in 1945 by A. Harrison and R. Hubbard; the reliefs of the Cabreo (inventory of the assets of the great ecclesiastical administrations) carried out in 1734 for the foundation of the Grand Master Manoel of Vilhena; the Old Sheet Survey, the reliefs of the whole Maltese territory executed by the English school of military engineering Chatham for the War Department between the end of the nineteenth century and the beginning of the twentieth century; the surveys of the Land Registry, the recently established Maltese land register; some documents of 700 - 800 of the notarial archive; maps and surveys of the collection of the National Library of Malta; the surveys carried out during the internship in Malta in the housing units located in Triq Tramuntana.

The archive of the CD Office was certainly the most important source, as it provided detailed surveys of the demolished blocks and new alignments, with indications of openings and properties on every street front (almost like a land registry), with the reliefs of the paths that disappeared after the reconstructions and those of the blocks and paths still existing, with housing units and specialized buildings having

public function (schools, institutional buildings). The other archives mentioned were useful for finding reliefs of individual housing units and individual specialist buildings that were assembled and inserted in the reconstructed cadastral.

The final assembly was compared with the map compiled by Carapecchia in the 1700s, with historical maps drawn up in 1694 by De Fer and with images of the great wooden model, currently exhibited in a room of the Inquisitor Palace, executed at the beginning of the 19th century from Ruzer Calleya, citizen of Vittoriosa who at the time carried out surveys of the houses of the Borgo. We have also chosen to use this type of document because it reproduces an urban configuration preceding the subsequent events of the 1950s and, in this sense, it was very useful, despite the “three-dimensional” comparison.

Considering that the formation of a path can't be separated from the construction of its margins and starting from the recognition of the bands of pertinence, which tend to be constant along a path when it is built up around a certain time, verifying the orthogonality of the walls on the street front and comparing the “step” as a module coinciding with the distance between the walls of the area in order to identify the size of the “cell”, that is the fundamental unit of the structure of the urban fabric, it was possible to elaborate the hypotheses of formation.

The reconstruction of the first phase, dating back to the Middle Ages I, is distinguished by the recognition of a first path that, parallel to the coastline, runs along the Birgu peninsula and reaches the pole formed by the Forte Sant'Angelo. Comparatively to what is found in other urban contexts having similar typo-morphological characteristics and making use of logical considerations, it is possible to hypothesize that the fabrics settled on this path start from the proximity of the pole. This path could be identified as a ‘matrix path’ because it pre-existed the urban fabrics formation and, as conditioned by the morphology of the soil, it presents a curvilinear course having to mediate the need to overcome natural impediments with the need to be straight. In addition to this, two other spontaneous crossing structures can be recognized: the first, which tends to reach the small connecting port with Senglea (Mandraggio area) as little as possible, is located in the NE part of the peninsula and, recognizable in the next zone to the future sixteenth-century walls, it coincides with the current path defined by the *intervallum* located before the wall; the second, which partly runs through today's Triq Hilda Tabone, also influenced by (albeit not very accentuated) the morphology of the place, starts from the hypothetical

matrix path and, structuring itself in the lower-level part (ie the place that is conforms as a “saddle”), reaches the old port generating urban fabrics that has progressively hit the peninsula’s margins. Another route was probably to reach the *Castrum Maris* starting from the Cavalier Hill; in the initial part it could have coincided with the main viability of Birgu, known today as *Triq il-Mina il-Kbira*, and then, at today’s *Ir-Rebha square (Victoria Square)*, a secondary road along the same height which bends towards the side of *Calcara Creek*, today’s *Triq Santa Skolastika*, and then continues towards *St. Philip Hill*, the current *Triq il-Palazz l’Antik tal Gvernatur*. Also, along this route, the presence of a fabrics aggregate near the fort was hypothesized.

The structure of the reconstructed urban fabric allows, moreover, to conjecture the existence of a further spontaneous path that was to branch out from today’s *Triq Antika* and head towards the ancient port of *Mandraggio*, crossing the area later occupied by the conventual complex of *Santa Skolastika*. To support this supposition, we could recall the historical sources that highlight the birth of the cenobitic structure of *Santa Scolastica*, initially used as a hospital and sacred infirmary, built after the arrival of the Knights.

Other routes, as represented in the table (Fig. 1) that describes the first phase of formation of the village, must have been formed even if, later, partly deformed or clogged especially with the Knights settlement who favored the transformation of the part next to the *Collacchio* with specialized buildings. These paths have been represented with dashed lines.



Figure 1: Birgu urban organism; formative phase 1: Medieval I.

The second formative phase of the Birgu urban fabric (Fig. 2),

corresponding to the medieval period II, sees the formation of two new paths that sprout from the Triq Hilda Tabone path which seems to acquire greater importance. The first is that route which, discarding the slope, flows into the distance parallel to the coastline (the current Triq Tramuntana); the other is the current Triq Il-Majjistral going back to the inclination of Cavalier Hill, along which the building is attested. In this phase the fabric is also consolidated along the paths of the Mandraggio area, up to the square Ir - Rebha which begins to reach the role of “node”, and towards the polarity represented by the Castrum (along Triq Santa Skolastika and Triq il-Palazz the Antik tal Gvernatur).



Figure 2: Birgu urban organism; formative phase 2: Medieval I

The further formation of built along the existing routes and the construction of new ones on others, describes the third phase (Fig. 3), corresponding to the structure reached by the village at the time of the arrival of the Knights. Most of the fabric of the Collacchio area and the area next to the Castle were presumably already consolidated, defining the blocks almost definitively. Other routes are born in the Marina area.



Figure 3: Birgu urban organism; formative phase 3: 1530 A.C., arrival of the Knights of Malta.

The fourth phase (Fig. 4), relating to the period immediately after 1530, describes the interventions carried out to favor the small town and the settlement of the Knights, whose brief stay before moving to La Valletta, as widely documented by historical sources, determined the radical mutation of the fabric through the definition of the traditional Collacchio. This was accomplished with a series of interventions that, while maintaining the original structure of the Middle Ages structure, strengthened the settlement through additional blocks and, especially, intervened to “geometrize” those close to the central area (Collacchio). In particular, the following buildings were built within this area: the Bishop’s palace; the University; the residence of the chaplains and the armory. The conventual buildings of San Domenico and Santa Scolastica were born marginally to the existing urban structure and a straight path (of restructuring) was formed in the area of St. Philip Hill, along which the church of San Filippo was erected with an adjoining oratory.



Figure 4: Birgu urban organism; formative phase 4: XVI Century, post-Knights arrival structure.

The last phase (Fig. 5) represents the configuration of Birgu in the nineteenth century, up to the events of the Second World War that radically changed the medieval consolidated structure.



Figure 5: Birgu urban organism; formative phase 5: XIX Century, before World War II

THE AGGREGATIVE ORGANISM: COMPARATIVE STUDY OF THE URBAN AGGREGATE STRUCTURE

The study of the Birgu urban tissue was also carried out by comparing the “modules” that make up the blocks, in order to recognize the “structural” differences in the construction of the nucleus constituted by the Collacchio and by the parts of the city outside it (Fig. 6).

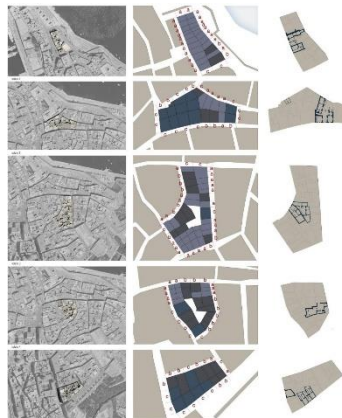


Figure 6: Birgu urban organism; urban fabric aggregate

The reconstruction of the urban aggregate is consequent to the study of the formative phases of the city, which suggested the main reflections on the structure of the settlement and, in some way, confirmed the hypotheses formulated on the development of the urban fabric organization. From the study carried

out on the urban fabric scale it is clear that the formation of the lot, and the consequent formation of the block, follow aggregation rules common to many medieval urban fabrics of the Mediterranean area.

The modular relationship of the lots of the housing units necessarily conditions the maximum dimension of the block front. This relationship changes, albeit not very much, in the different periods of construction of buildings and in different parts of the city.

Actually (Fig. 7), the urban organism of Birgu is mainly constituted by basic residential buildings, from houses arranged side by side, mostly orthogonally to the tortuous paths characterizing the ancient village, in particular the area of the Collacchio remained less affected by the damage of World War II. Except for the areas reconstructed after the war, the basic building preserves characters of spontaneity, easily recognizable regardless of the subsequent transformations and changes that have occurred over time. This makes it possible to read the basic building of Vittoriosa generated by the aggregation of almost quadrangular rooms, of variable dimensions and ratios.

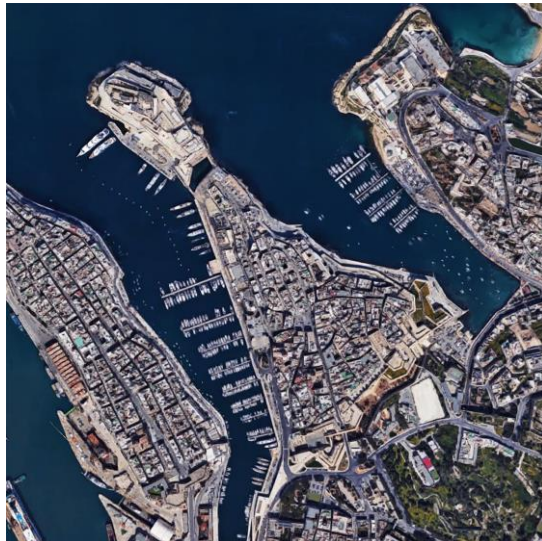


Figure 7: Birgu urban organism; actual view from above

There is also a certain constancy of dimensions on the main front, varying between three and five meters, in simple single-family dwellings, and the doubling of these dimensions in aggregate types. The depth of the house that develops by successive doubling of the cell, perpendicularly to the street front, is highly variable.

Five sample blocks were analyzed among those that did not suffer the post-war demolitions, three of which are in the Collacchio area, one is facing the walls and one is close to the sea front, in the final part of the peninsula.

CONCLUSION

We can conclude affirming the necessity to study the evolution of the urban form starting not only from the physical documents, such as cadastral plants and reliefs of the existing walls, but also considering the historical events that have marked the vicissitudes of the urban community. The city of Birgu, in particular, confirms the phenomenon of 'hybridization' that characterizes centers of great cultural exchange: the courtyard building typologies merge and coexist with the row-houses typologies. The evolution of the basic building urban fabrics, together with the specializations in the polar and nodal points, obeys the general formative laws derived from the study of continental formative processes.

Finally, we can affirm the necessity of the study of urban fabrics aimed to the project of their transformations: knowing the history of the physical evolution of the urban fabrics, that is, identifying the physical and cultural links that make up the buildings and the formative phases that define their evolution, means obtaining a basis of logical interpretations on which project (pro-jectus) future transformations, coherent with the built context. The reading method, therefore, is connected to the final planning act.

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