Vernacular Architecture

= Towards a Sustainable Future =

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Cover photo: Vernacular dwellings at Rincón de Ademuz (Valencia). Picture by Vegas & Mileto

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A typical island habitat: The baracca of Carloforte

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ABSTRACT: The research, financed by the Integrated Action Programme between Italy and Spain (Università degli Studi di Firenze/Universitat Politècnica de València), deals with the study of influences between island urban settlements in "border" areas between Spain and Italy between the 16th and 18th centuries. The case study focuses particularly on the founding of Tabarkan settlements. The first one was Tabarka island, off the Tunisian coast, which was followed by two others: Carloforte (Sardinia, Italy) and Nueva Tabarca (Alicante, Spain). The article focuses on a simple, single-room, multifunctional dwelling, known as the *baracca di Carloforte*: a construction with a square ground plan and single interior space, covered by a sloped, mono-pitched roof partially divided by a light wooden frame forming a loft.

1 INTRODUCTION

1.1 Historical context

By the 12th century, the Tunisian coasts of Marsacares (on the Gulf of Bora), which were under the jurisdiction of Pisa, was being exploited by coral fishermen from Genoa, Catalonia and from Montpellier and Marseille, France.

After a long hiatus, foreign interest in the exploitation of coral in the area intensified towards the middle of the 15th century. In 1446 the Catalan merchant, Rafael Vives, obtained a license for coral fishing from the ruler, Uthman. In the following years (between 1446 and 1448), the Catalan fishermen, many of whom lived in Sicily, fished near the small island of Tabarka. Between 1452 and 1506 the Genoese succeeded the Catalans and took control by obtaining a concession from the Tunisian Bey (1451) for coral fishing and trade on the coast from Cabo Rojo to the West. They founded a company working on the precious "red gold" trade. This led to a more stable settlement, spontaneously giving rise to a colony of fishermen on the island of Tabarka. Initially they settled under the protection of the Republic of Genoa.

In the first half of the 16th century, the Spanish Crown began a military campaign in North Africa to protect the sea routes with Sicily, Naples and Alexandria, and also to contain the Muslims. In 1535, Tunisia was captured, overthrowing *Kheired-Din* Barbaroja, returning the throne to *Moulay Hassan* and offering its protection to the new sovereign. Tabarka then came under the Crown

dominion and was situated on the Muslim-Christian frontier, where Spain established a strategic border, while maintaining its status as a place valued for the richness of its coral reefs.

In 1542, the first contract was signed for the exploitation of the Marsacares coral between the Spanish Crown, represented by the Viceroy of Sicily, Fernando Gonzaga, the Genoese families of the Lomellini (from Pegli, Liguria) and the Grimaldi. In 1570, the agreement was renewed exclusively with the *Lomellini di Tabarka*. The agreement allowed them to settle on the islet with a legally defined presence, under a concession scheme, dedicated to fishing and the coral trade. Thus began a period of two centuries of Spanish domination of Tabarka.

After the 16th and 17th centuries, in which the only remarkable thing was certain amount of pressure from the Turkish Corsairs and the Franco-Algerian attempt to take possession of Tabarka from neighbouring "Bastion of France", the 18th century arrived with an excessive population growth, the impoverishment of the coral reefs and the intensification of the humiliating extortions from the Bey of Tunisia. All this, linked together with the diversification of fishing activity (with the introduction of the almadraba tuna fishing net), pushed the Tabarkans to find new places to settle. In 1738, nearly 400 Tabarkans arrived to the island of San Pietro in Sardinia (Italy) with the blessing of King Carlo Emanuele II of Savoy and as subjects of the Marquis of Guardia, to establish themselves as settlers and to found the town of Carloforte.

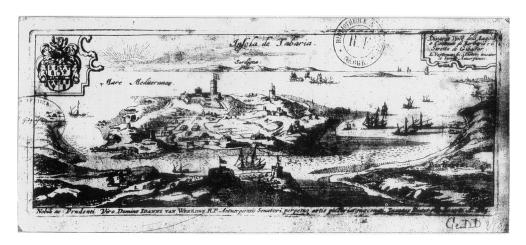


Figure 1. Engraving entitled "Insola de Tabaria", 1665 (National Library of Paris; Cartes et Plans GeDD 240).

1.2 The Tabarkan habitat

With the exception of the fortress prison, designed by military engineers of the Spanish Crown, the structure of the settlement from the period of Spanish domination on the island of Tabarka inherited the layout and the foundations of the pre-existing fishing colony, where the houses were built by the settlers themselves. This led to a dispersed territorial structure, with the emergence of small spontaneous urban clusters from the aggregation of family units around roads, small squares, and a church. At the beginning of settlement on Tabarka, work was seasonal in nature, with half the population dedicated to coral in the winter than in the summer season.

The type of housing used responded to the logical determinants of simplicity, economy and functionality restoring to traditional easy self-construction patterns of rural origin; a kind that we commonly call "baraccas". Nowadays, it is difficult to trace the features of this architecture to its place of origin. Nothing remains from that Tabarka apart from the fortress and the traces of some smaller buildings. The original documents preserved from that time are not sufficiently descriptive.

Archaeological campaigns carried out between 1987 and 1993 by researchers from the National Institute of Archaeology and Art of Tunisia (INAA, of the Institut National du Patrimoine de Tunis), l'Ecole française de Rome and the French EHESS are not conclusive either, but they provide information of considerable interest (Gourdin, 2008; 355–449) among which we can highlight:

 Virtually all of the remains of settlements found come from the so-called "Genoese period" (1452–1741) and are spread across almost the entire island, except for some very localised

- remains from the period immediately after the French "Company" of "Africa". No traces of earlier settlements have been found
- They are unsystematic constructions of diverse
- They use the same construction technique for walls, made of facing stone masonry from the area, with presence of filling materials and mortar joints
- The Tabarkan house of the Genoese period, in general terms, consisted of a main room (occasionally two, interconnected) whose interior dimensions would be between 4 and 5 metres, giving rise to a basic surface area of between 16 and 25 square metres
- More houses consisting of two rooms linked to a courtyard can be identified to the area west of "the church". The existence of remains of a stairway suggests the presence of a second floor. Single-roomed dwellings, open to a coral can be identified in the area east "of the cliff"
- The most primitive buildings are not related to traditional Tunisian techniques and typologies
 - However, an "africanization" of the Genoese models can be appreciated in later times: a single opening on a terrace-cistern acting as anteroom where the oven is located; a plot surrounded by a low wall as a kind of enclosure. It seems that, models that inspired the design of the first homes of Tabarka came from Liguria (Gourdin, 2008). Over time, details from North African architecture, better adapted to the conditions of the territory, were introduced (Raccis, 1995). Upon arrival on the island of San Pietro, the Tabarkans brought with them their type of baracca, which had evolved with Tunisian influence, which perfectly suited the conditions of the rural environment despite being unrelated to the architecture of the area.

To erect the new Carloforte, the Marquis de la Guardia, using the designs of the engineer Augusto De La Vallèe, took charge of the construction of the fortress, the "Duca house", the parish church and the "cistern of the King". The settlers, for their part, worked on the construction of those buildings and dealt with the building of their own houses. The only design element imposed was the planning of streets and "blocks", which were designed by the same engineer, De La Vallée. The type used in the first houses built in Carloforte was chosen by settlers themselves. Nowadays, vestiges of such housings barely remain, although in some photographic documents from the end of the 19th century, it is possible to state that they were of the typical type which is today known as la baracca di Carloforte.

In the city, the original dwelling was soon replaced by a more urban one, of Genoese lineage; terraced houses with narrow facades, two or three bays, two or three floors and a linear staircase located on one side. This kind of vertically overlapping housing was better adapted to the conditions of regularity and dense grouping imposed by the new layout of the city, with pseudo-orthogonal blocks and narrow, deep plots. The *baraccas*, on the other hand, survived in rural areas of the island of San Pietro so it is still possible to find well preserved examples of them, still in use.

2 THE BARACCA AT CARLOFORTE

2.1 Description

It consists of a simple four-sided construction of 5×6 metres outside (4×5 meters inside) and single-room interior space. The main facade, always facing south or east, has the only opening giving access to the house and is crowned horizontally without eaves, 3.5 meters above the access level. The interior is a single area covered by a sloped, mono-pitched roof partially divided by a light wooden frame forming a loft. Entering through the door, there is a kitchen with fireplace and chimney can be found on one side and there is a small staircase leading to the loft on the other.

The remaining space is occupied by the diningcum-living room. Upstairs, the bedroom, ventilated by a little window opening in the back or lateral facade can be found, usually facing north. This construction type is completed by a cistern, located below the terrace in front of the entrance, which receives rain water collected from the roof by a system of gutters and downspouts. Sometimes the wellhead opens to the interior of the house, set into the wall opposite the kitchen. The walls, approximately 50 cm thick, are built with plastered, whitewashed masonry. The floors are supported by sturdy juniper wood beams; the same material boards as in the loft. Battens, thatch and roof tiles form the roof. The floor surface was originally paved with clay tiles. The main entrance door, of 1.20 metres wide and 2.40 metres high, is split in two halves allowing the partial opening of its upper half to serve as a window. In one of the side walls, next to the opening for the cistern—where it opens to the inside-, there is usually a small built-in food cupboard with wooden shelves.

It consists of a simple, single roomed, multifunctional and self-sufficient typology that responds to basic schemes of the traditional, almost ancestral habitat in the area of the Mediterranean basin. It is ascribed to the category of "basic house" of "single bay" in the field of rural architecture (Del Rey, 1998), always linked to the most traditional construction practices in their respective territorial



Figure 2. An example of *baracca* from San Pietro island, 2010 (Juan-Vidal & Merlo).

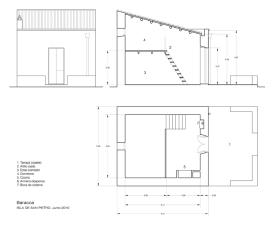


Figure 3. Descriptive drawing of a baracca from Carloforte (Juan-Vidal & Merlo).

context. It is not unusual to find them closely related to ones from other areas, such as the "pallisa" of the Bajo Maestrazgo (Castellón, Spain), which some people value as a shining example of wisdom (Garcia Lisón, 2000).

2.2 Variants and groupings

The earliest examples of Carlofortina barraccas, instead of single-sloping roove, had barrel vaulted ceilings, built with squared stone slabs, which some people attribute to the influences of Tunisian lineage (Raccis, 1995; 29). In fact, the most traditional rural ones of North Africa, and in general in the territories with a pre-desert climate, barrel vaulted ceilings are very common due, in part, to the difficulty of getting wood to manufacture beams.



Figure 4. Interior views of a *baracca* from Carloforte, 2010 (Juan-Vidal & Merlo).

As usual in this type of early dwelling, the need for more space is resolved by the addition of two or more units rather than by the extension and/or alteration of the basic unit.

It is interesting to study the rules which these baraccas follow while building up a population nuclei. Fortunately, on the island of San Pietro, some rural villages like Pescetti or Tanche generated by aggregation of these typologies have been preserved to allow us to analyze their patterns.

In the case of Tanche, dwellings are grouped into rows lined up on both sides of a road. On the northern side, the grouping is simple, with terraced houses attached one to another by their side walls and with their facades in south-east direction where they can be accessed directly from the road. On the southern side however, the grouping is more complex. The houses keep their natural orientation: facade and access to south-east/ridge to north-west. Thus, access doors do not open to the road but to the back of the plot. Access is resolved by separating adjacent dwellings from each other, leaving a passage between them that communicates with the road, through the plot, with a terrace-anteroom from where to enter the house. This passage, covered with the same single-slopping roof of the baracca, is closed at the border with the street in line with the wall, by means of a door with the size and appearance similar to the main door. In this way the baraccas do not sacrifice their typology

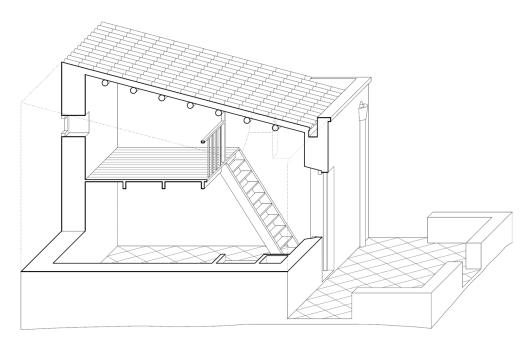


Figure 5. View of the *baracca* in Carloforte (Juan-Vidal & Merlo).

and bioclimatic consistency by the constraints imposed by the urban group, adapting ingeniously to the context of the small urban nucleus by means of auxiliary elements that are not alien to them.

2.3 A sustainable habitat

"Heritage" is commonly defined as something that we have inherited from the past and deserves to be preserved. It is true that in recent decades, the reasons why "we decided" if something deserved to be preserved or not has evolved. Previously, such reasons were, above all, the value attributed to the object (and its surroundings). Nowadays, we pay more attention to meanings and/or connotations that such object awaken in the subjects of a certain group of individuals, coming to symbolise, to a greater or lesser extent, their own "cultural



Figure 6. Aerial view of the village of Tanche (Comune di Carloforte) showing the views of both facades to the road (Juan-Vidal & Merlo), 2011.

identity". The inhabitants of Carloforte and, in general, of the whole island of San Pietro, retain a deep sense of "Tabarkan" identity and the *baracca* is one of the constructions that, at present, more properly come to symbolise that identity.

The concept of habitat, apart from architecture, includes the environmental and social conditions of the environment in which it develop. The habitat contains life. It is the living space of people. For that reason, in addition to conserving and rehabilitating its architecture and to regenerating its contexts (whether or not urban), also proceeds to revitalize its raison d'être: the society that inhabits it and that, somehow, keeps alive the tradition that gave birth to it. The people of Carloforte, committed to their past, seek to preserve these homes in optimum conditions to be inhabited, without essentially distorting their authenticity, as a way of preserving the memory of the Tabarkan society.

Rehabilitation and recovery of these *baraccas* are actions which, in themselves, generate sustainable development since they improve the quality of life and contribute to strengthen collective identity and social cohesion. From an economic point of view, their restoration, having to resort to traditional construction techniques and local materials (to the detriment of foreign manufactured products), contributes to the development of the local economy and consequent saving in transportation process.

In the environmental field, its nature of minimum housing and bioclimatic qualities makes it an energy-efficient habitat.

On the other hand, its island origin adapted to the customs of a pre-industrial age gives it an

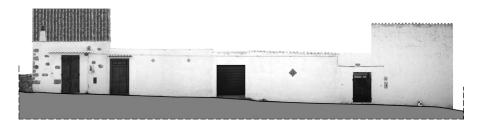


Figure 7. Northwestern facade from the road of Tanche (south-ern block), 2010 (Juan-Vidal & Merlo).



Figure 8. South-east facade from the road of Tanche (northern block), 2010 (Juan-Vidal & Merlo).



Figure 9. *Baracca* from the island of San Pietro in their environment, 2010 (Juan-Vidal & Merlo).

autonomous and self-sufficient character, especially in regard to running water and electricity supply.

In short, a traditional common dwelling that responds effectively to the present social and cultural needs without compromising the ability of development for future generations.

3 CONCLUSIONS

The research, developed through an intensive field survey in the three Tabarkan places (*Tabarka, San Pietro and Neva Tabarca*) and the thorough consultation of abundant literature and archival documents such as historical drawings (Juan-Vidal, 2012; 90), has allowed us to enhance the *baracca* at Carloforte.

It has also facilitated its comparison with habitats that currently configure the towns of Carloforte (Cerdenya, Italy) and *Nueva Tabarca* (Alicante, Spain). Relationships have been found that allow the explaination of some influence of the primitive *baracca* in their typologies, although they come from different models and from different places.

These include:

- Bays parallel to facade.
- The same dimensional room module.
- Using open plan spaces with no internal division.
- The low occurrence of holes in walls.
- The use of such solution for roofing.
- The island custom of collecting rain water and running it into a tank...

NOTE

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