

Rural and Urban Vernacular Architecture of the Mediterranean

A source for contemporary, contextual, architectural design solutions

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Abstract—This paper addresses the rural and urban vernacular architecture of the Maltese archipelago, a group of islands in the centre of the Mediterranean. It has long been acknowledged that the islands boast of a long cultural legacy dating back to the Neolithic period. By means of two contemporary case studies from Gozo, the second largest island of the group, this paper illustrates contextual architectural design solutions which are inspired by vernacular language. Although both case studies are located in the village of Xewkija, one is in a rural setting whilst the other is an urban one. Thus, following a brief section which makes reference to the definition of the vernacular, the paper outlines the vernacular architecture of the islands. It concludes by making reference to the recent health and sanitary regulations which reinforce the former, vernacular insensitive, mid-nineteenth sanitary provisions, thus negatively impinging on the well-being of society.

Keywords- vernacular architecture, contextual architecture, Mediterranean architecture, architectural design

I. THE VERNACULAR DEFINED

Architecture needs to respond to three basic dimensions: people, place and routes [1]. The vernacular in architecture was first brought up by Rudofsky in his seminal publication *Architecture without Architects* [2]. He defined the scope of his book thus: “Architecture without Architects attempts to breakdown our narrow concepts of the art of building by introducing the unfamiliar world of non-pedigreed architecture. It is so little known that we don’t even have a name for it. For want of a generic label we shall call it vernacular, anonymous, spontaneous, indigenous, rural, as the case may be”. Parallel to the launch of the book, an exhibition was held in New York which included black-and-white photos of vernacular buildings from around the globe. This exhibition made the theme popular and helped in making the book a success.

Oliver defines vernacular architecture in his authoritative edited *Encyclopaedia of Vernacular Architecture of the World* [3] as comprising of “... dwellings and other buildings of the people. Related to their environmental contexts and available resources, they are customarily owner- or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of living of the cultures that produce them”. Vernacular architecture is the “architecture of the people, and by the people, but not for the people” [4].

Whilst acknowledging that there is yet no specific discipline majoring on the study of vernacular architecture, Oliver notes that if such a discipline were to emerge, it will combine architecture and anthropology with history and geography [4].

Bronner developed the debate of the choice, expectations and transmission of building tradition as a model control and authority in vernacular architecture [5] whilst Noble distinguished between the terms vernacular, folk, traditional and popular architecture [6]. Although traditional, vernacular architecture should not be confused with this architectural expression.

Architects studied and developed their architecture on the vernacular well before Rudofsky’s publication. In this context one ought to mention the contribution of Fathy who, way back in the mid-1940s, had studied and incorporated the vernacular architectural concepts, features and technologies of Nubian settlements in his design of New Gourna [7]. This was the first project whereby the forms and building methods of the vernacular were applied to tackle the socio-economic and environmental realities of the users.

II. VERNACULAR ARCHITECTURE OF THE MALTESE ISLANDS

The Maltese archipelago is located in the centre of the Mediterranean, mid-way between Africa (288km north of Libya) and mainland Europe (93km south of Sicily). The two largest inhabited islands are Malta and Gozo, both supporting a rich built heritage of world significance dating to a millennium prior the Great Pyramid of Giza [8]. The literature on the Neolithic legacy is focused on the tangible cultural heritage, namely the impressive, megalithic architectural complexes. Non-tangible heritage significant to any discussion on the vernacular architecture of the islands, is the culture of Malta (and Gozo) and the native Maltese language in particular. The population ethnically absorbs from the Phoenicians, Arabs, Italians and the British.

A. Geocultural backdrop

Following Phoenician occupation in circa first millennium B.C., the Carthaginians (480B.C.) and the Romans (218 B.C.) ruled the islands. They were conquered by the Arabs (870 A.D.), the Normans (1090 A.D.), the Spanish (1282) and handed over to Knights of the Order of St. John (1530 A.D.) as a perpetual feud by the Holy Roman Emperor Charles V. It was

briefly occupied by the French (1798 A.D.) and, following the arrival of the British two years later, it was annexed to the British Empire (from 1814 A.D. until 1964A.D.) [9]. These periods respectively correspond to the building phases on the islands [10].

Malta's geographical position is imperative when studying the interplay between the North and the South of the Mediterranean. Maltese is essentially a Semitic language written in Latin alphabet and with significant romance vocabulary. It is believed to be derived from ancient Phoenician. Although, the language is mainly of the South, the official religion is of the North.

Rural and urban vernacular architecture of the Maltese Islands is constructed in the honey-coloured Lower Gobigerina Limestone of marine sedimentary origin which outcrops over two-thirds of mainland Malta and over a significant part of Gozo. Written literature is limited with respect to vernacular architecture and scarcer with respect to urban planning prior the fifteenth century [11]. Further research on derelict structures and earthenware from sites within lost hamlets will provide insight on vernacular culture [12]. Later in history, three settlement patterns emerged: bifurcated, tangential and radial [13]. Despite a lapse of a number of centuries since Arab domination, the rural and urban texture of the Maltese Islands is more akin to the Middle East; residential architecture is introvert and streets and alleys developed along an organic pattern.

B. Rural vernacular architecture

The "girna", a corbelled stone shelter, is a rural vernacular building associated with the islands' Neolithic heritage. Its typology and construction is akin to structures in the Jabal and Ujlah areas in Libya, in Palermo region in Sicily, the "nuraghi" of Sardinia, the "bunje" of Yugoslavia and the "trulli" of Apulia region, Italy [10]. Two types of "girna" are present: circular and square in plan, the former predating the latter.

Another significant rural architecture typology is the Maltese farmhouse known as "razzett" (fig. 1). The massing

and the expression of the farmhouse are cubic. This tradition is inspired from the architecture of North Africa which hints towards common origins prior the advent of the Knights of St John [10].

The typical farmhouse had two entrances, one for the "remissa", the cart entry point. This building typology is organically planned and extended around a courtyard shaded by a "setah", a wide-arched loggia [14]. In addition to living spaces, at ground floor level, it included "mqawel" and "mandri", rooms and yards for animals respectively, and a "bir", usually a bell-shaped well hewn in the bedrock for the collection of rain water from the roofs for potable use. The farmhouse had at least one room at first floor level, known as "ghorfa", used for sleeping or for the storage of animal fodder.

A feature associated with rural vernacular architecture in the Maltese Islands is rubble walls, "hitana tas-sejjeħ", which are nowadays protected at law [15]. Such walls characterize the Maltese landscape; they serve either as property markers, as a soil retaining structure or both.

C. Urban vernacular architecture

The urban vernacular architecture of the Maltese Islands is the expression arising from the crossroads of civilisations. It is the synthesis of the culture and religion of the Southern and Northern Mediterranean basin, the Islamic organic urban planning consisting of winding streets and alleys, and the Roman Catholic parish square, the main socio-political and commercial centre of the village (fig. 1). Despite the influences from Europe, most notably Sicily, the concept of the parish square, the "misrah", is Middle Eastern; the open-air market is located adjacent to the parish church. The linguistic term used reinforces the predominance of the Semitic origin over the romance languages of Europe. The Maltese word for market is not "mercato" but "suq". The Baroque influences in the design of churches emerged in the seventeenth century. Until then, they could be differentiated from secular ones by building elements such as belfries, decorated doorways and paved parvises [13, 14]. Unlike the Baroque parish church which



Figure 1. Ir-Razzett tal-Hursun, an original, rural vernacular farmhouse, restored and rehabilitated into the Mediterranean Institute of the University of Malta (left), Main Street, Birkirkara (centre) and Parish Street, Mqabba (right).

created a visual landmark and a reference point from afar, the vernacular churches were smaller in scale, rectangular in plan, and roofed over by masonry slabs supported by arched masonry ribs [16].

Until the introduction of the building laws and regulations in the latter half of the nineteenth century, courtyard houses adjacent to one another, lined the streets and alleys. The configuration of these thoroughfares was a function of the original meandering public footpaths or the border of one's property line or both when a broader widening was sought. The year 1880 was the dead knell of this typology. The terraced house layout with a back garden, and occasionally with a front garden, was made compulsory at law [17]. The terraced house typology is not appropriate for the central Mediterranean climate; it is indeed the antithesis of the existential reality as it aims to conserve rather than dissipate heat. In addition to this environmental aspect, this layout had imposed a transformation of the symbolic and experiential content. In Tonna's words, "As courtyard houses were replaced by row houses, their introverted centrality gave way to a street-oriented polarity between a symbolic 'front' addressed to outsiders and a functional 'back' for family life. The Middle-Eastern perception of the street as no-man's land between intensely private domains was replaced by the baroque perception of the street as theater" [14].

D. Linguistic-cultural dichotomy and national character

Rural and urban vernacular architecture is characterised by cubic forms which are also present in other Mediterranean islands like Sicily, Lipari and Ibiza [18]. But the case for the Maltese islands is unique. The geocultural context is distinguished by a linguistic-cultural dichotomy, fundamental in projecting its national identity. The dichotomy between language and culture widens as the entire population is Roman Catholic rather than Muslim. Sant Cassia [19] argues that the emphasis on Malta's religious identity has been intentionally used to offset Malta's linguistic links with the Arab world.

De Lucca noted that "Irrespective of whether they occur in isolated forms or scattered in the countryside, ... the unique character of the cubic architecture of Malta stems from the innumerable permutations and combinations of a few basic shapes. These are modelled in a seemingly endless series of visually interesting spaces: internal courtyards, narrow winding streets, wide, straight thoroughfares associated with baroque gridiron patterns and, more significantly, typically Mediterranean piazzas. The piazzas can range from mere left-over clearings tightly enclosed by buildings to more sophisticated and spacious forms that hinge on the presence of some dominant baroque palace or church, or both" [10].

III. CONTEMPORARY, VERNACULAR INSPIRED ARCHITECTURAL DESIGN

The following are two case studies recalling the rural and urban vernacular architecture of Xewkija, Gozo, the island where the legendary Homeric Calypso lived:

- The interpretation facility at Ta` Blankas olive grove, and
- A row of residential units along a public alley.

Ta` Blankas olive grove falls within the boundary of Mġarr ix-Xini Regional Park, a joint initiative between the adjacent local councils of the villages of Xewkija and Sannat [20, 21]. This project aimed at protecting, safeguarding, sustaining and enhancing the eco-sensitive, geocultural landscapes of Mġarr ix-Xini valley [22]. Nowadays, it is listed in COST A27 as a cultural park in Europe together with other parks in Belgium, France, Italy, Spain, Greece and Iceland [23]. The row of residential units is along one side of a public alley abutting onto Triq Tal-Ħamrija. Historically, street names were toponyms; the Tal-Ħamrija area was associated with an agrarian estate that might have supported an olive oil industry [24].

A. The interpretation facility at Ta` Blankas

Following the establishment of the park, Xewkija Local Council submitted a development planning application in 2008 to upgrade the existing olive grove at Ta` Blankas, which falls within its boundaries. The proposed works included the reinstatement of dry stone walls and the reconstruction of the collapsed part of an existing agricultural store measuring circa 26m², including the roofing of same, in vernacular construction, namely masonry dimension stones supported by timber beams (fig. 2).

Subsequent to the discussions between the Mġarr ix-Xini Valley Regional Park Action Committee responsible for the running of the park, and the officials of the regulatory body responsible for the issuance of planning permits, it was agreed to develop a design to extend the interpretation centre to house a permanent exhibition of heritage artefacts and other findings of scientific importance discovered in the park. This idea was encouraged following archaeological excavations undertaken at Ghar Ix-Xih, studies on the terracing of fields and other features of cultural significance. In addition, amenities such as a lecture room and public conveniences were also deemed necessary for the feasible implementation of the project and to render it more apt for educational purposes both for primary and secondary school students.

The extension of the interpretation centre involved a lightweight reversible structure that would not impinge upon the existing heritage and environmental fabric of the site. A structural timber frame was designed to act independently from the restored historic rural structure, and was to be glazed on all sides. Shading provided by the mature trees reduces heat gains,

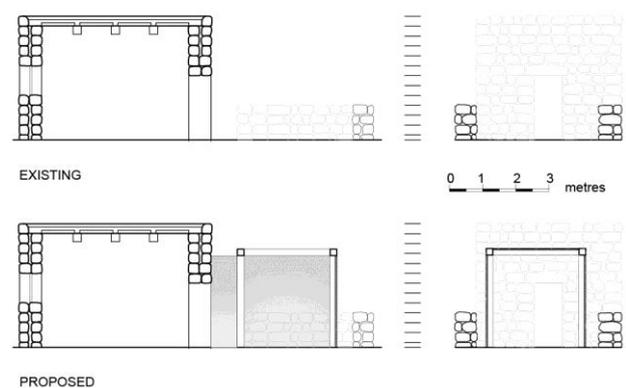


Figure 2. Extension to existing vernacular architectural store.

whilst allowing an undisturbed view of the archaeological area further south.

The site selected for the public convenience is located near the entrance at the eastern-extremity of the park. The architectural brief developed in conjunction with the Xewkija Local Council identified the need for a public convenience for both the visitors at Ta' Blankas park, and also for members of the public and hikers. Proximity to the existing public road limited both the amount of trenching required for connecting utility services and minimised the area that would be disturbed by such a development.

Two solutions were drawn up; although both addressed the same requirements, they contrasted one another in terms of architectural expression. The first option was a contemporary design, inspired by the remains of a rubble wall present on site, and featured a spatial composition of white-rendered planes and masonry walls revolving around the reconstructed rubble wall which serves as a central fulcrum for the composition (fig. 3, fig. 4). The second was a vernacular structure, bare from detail and characterised by simple rectangular volumes (fig. 4). Traditional details such as a water spout, "rewwiehat" (natural ventilators) and timber apertures were introduced.

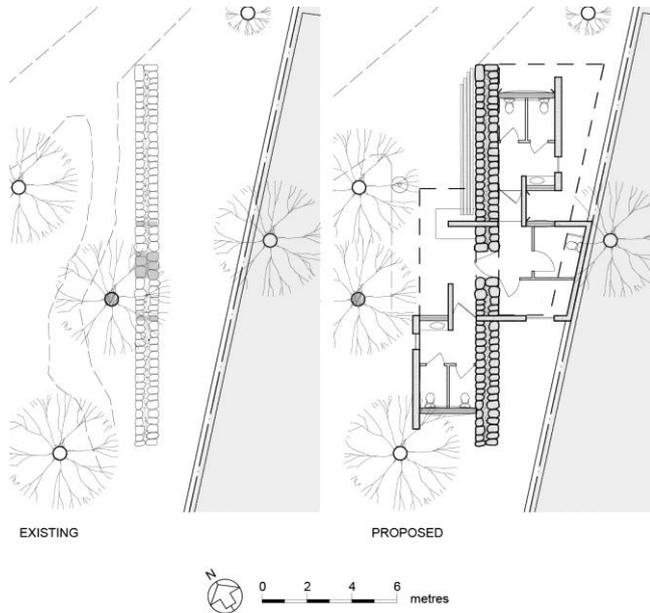


Figure 3. Contextual design for public convenience inspired by the remains of a rubble wall present on site.



Figure 4. Contextual, vernacular inspired, design for public convenience (left) and design based on vernacular vocabulary (right).



Figure 5. Replica of the traditional "girma" (left) and contemporary interpretation through vernacular grammar (right).

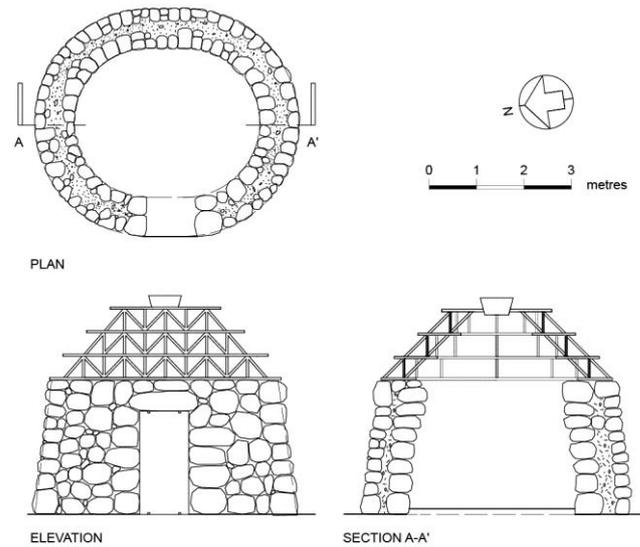


Figure 6. Proposed contemporary interpretation of the "girma".

A lecture room, inspired by the typology of the "girma", was also designed to cater for eco-educational related activities. Two design solutions were drawn up; one which is a replica of the traditional corbelled-stone-hut, whilst the other is a contemporary interpretation of same (fig. 5). The first option is based on centuries of tradition and craftsmanship, whilst the latter displays contemporary materials such as steel trusses and glazed rings (fig. 6).

B. Row of residential units along an alley

The proposal, designed between 2003 and 2004, was subsequently granted planning consent in phases in line with the relative applications submitted for incremental development consent. The site was a garden, which had long been in disuse, along an alley in the historic core of Xewkija. As per the Local Plan for the area [25], this location had been earmarked for residential development limited to two floors.

The site is flanked on both sides by traditional, load bearing, two storey, masonry structures (fig. 7). Given the locality and the neighbourhood, it was deemed imperative that the design of the elevation to this block, effectively running nearly two thirds of the alley, was in line with Leon Krier's philosophy. The profile of the block overlooking the public alley, the frequency, distribution and proportions of the apertures, together with environmental, climatic-related

considerations, does recall the urban vernacular architecture of the Maltese Islands (fig. 8).

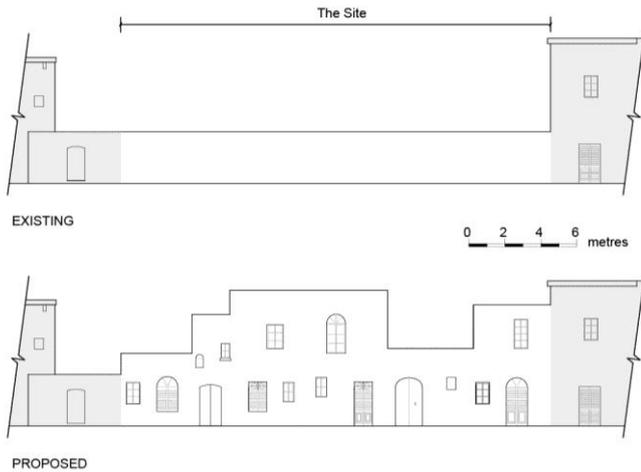


Figure 7. Existing and proposed elevation along the alley.

Yet, the composition and the distribution of the units and their internal planning layouts reflect a market oriented approach (fig. 9). This has not been undertaken at the cost of designing a building not fit for living. Contrary to the trend in the local building industry, the units are spacious, well-lit and ventilated. The constraint of having a back garden instead of a courtyard stemmed from local sanitation regulations. Given that the climate of the Maltese Islands is characterised by hot dry summers and wet-humid winters, the courtyard layout is more appropriate than the terraced house typology.

IV. CONCLUSIONS AND FINAL COMMENTS

Rural and urban vernacular architecture is a humane, pragmatic language; it is remote from complex intellectual concepts associated with the academic literature relating to the theory and philosophy of architecture. It addresses the well-being of the users. Although often applied to residential units, vernacular architecture does incorporate other building types. It is sustainable architecture in terms of being low-maintenance,

energy sensitive, and developed by users depending on their means to meet their needs. It is functional and the forms and massing of the overall composition of a given building are an unintentional consequence. It is a case whereby form follows function. Sizes of spaces, openings of apertures, and width of public right of ways are not planned to some geometric, theoretical precept. Having contemporary architecture and urban planning designs inspired by vernacular models, lead to a solution which is sustainable both in terms of culture and the economy.

Maltese vernacular townscapes are an expression of the merger of European Christian and Arabic Islamic traits. Until the effective legal abolition of the courtyard typology via the mandatory terraced house model, secular vernacular architecture was characteristically Middle-Eastern in outlook while sacred architecture was Baroque – a legacy of Christian civilisation on the Continent introduced in Malta by the Knights of St. John. Parish churches are at the hub of the town with secular architecture growing organically around them. Building forms are cubic except for the circular/oval forms of the Baroque churches which dominate the urban fabric.

Gozo is an interesting context to apply vernacular concepts to contemporary architectural design. Both case studies from Xewkija make use of vernacular language; applying the vernacular idiom and vocabulary ensure a contextual design. The design of the interpretation facility respects the memory of the place; it upgrades the site to meet contemporary needs. References to the vernacular are literal and metaphorical. The building of the facility is a symbiotic expression of the restored rural structure and the new transparent glass structure, located within the perimeter of the vernacular rubble walls which defines the original paved area. The lecture room, a recollection of the “girna”, is a contemporary interpretation which recalls not just the form but also its roofing system. In contrast with having a replica, the resulting design is a statement of its authenticity. Similarly, in the case of the public convenience, two options were available, one which is vernacular and the other which is vernacular-inspired. The latter option is likewise a statement which respects the “zeitgeist” and the genius loci.

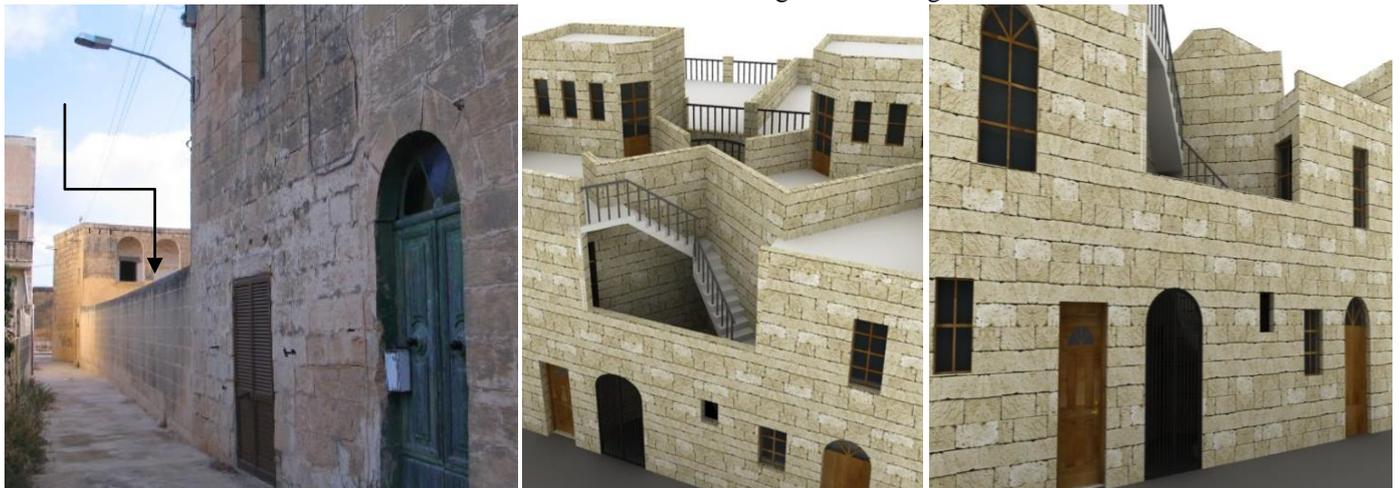


Figure 8. View of site (indicated by arrow); bird's eye view of southern part of block and artistic impression of proposed elevation along alley of same.



Figure 9. Internal layout: 1) kitchen/dining/living room, 2) bedroom, 3) bathroom/shower, 4) store, 5) back garden, and 6) internal yard.

In the row of residential units, vernacular language was used in the design of the alleyscape. Furthermore, the position of the apertures and technological interventions are vernacular. They will be constructed in the local building stone, the building material which builders had used on the island since the Neolithic age. Yet, the layouts are along plots with back gardens and internal yards; they are not of the courtyard type. This is a limitation imposed by local building regulations which ignores the local climate and culture. Recent sanitary regulations introduced [26] fail to tackle this reality. Environmental factors together with economic, technical and cultural ones, aspects addressed in their totality in vernacular architecture, are neither tackled nor an attempt is made at evolving same to contemporary living standards. The well-being of the users, and of the general public at large, is not taken into account.

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