

versus

VERSUS

HERITAGE FOR TOMORROW

Vernacular Knowledge for Sustainable Architecture

edited by
Mariana Correia
Letizia Dipasquale
Saverio Mecca



This scientific publication resulted from an intensive and significant teamwork research, based on the common main aim of establishing key principles, regarding vernacular knowledge and its contribution for sustainable development.

Lessons learned from vernacular heritage are systematised through principles that define a wide number of strategies to consider and to integrate for sustainable contemporary architecture. This was possible through the initial establishment of operational definitions, regarding vernacular architecture and sustainable architecture. It was also critical to define a profound reflection concerning the state of the art of environmental, socio-cultural and socio-economic sustainability, as well as resilient vernacular heritage, and the definition of parameters for vernacular sustainability during the 20th Century.

This publication presents the design of the VerSus research method and operative approach, which were decisive for the systematisation of strategies and solutions identified in urban, local, architectural, technical and constructive terms. Each area of study was represented by specific case studies from Europe and around the world, addressing vernacular environments and contemporary contexts.

VERSUS, HERITAGE FOR TOMORROW: Vernacular Knowledge for Sustainable Architecture is the final outcome of VerSus, an European project developed in the framework of the Culture 2007-2013 programme, funded by the European Commission from 2012 to 2014.



versus

Vernacular Heritage
Sustainable Architecture

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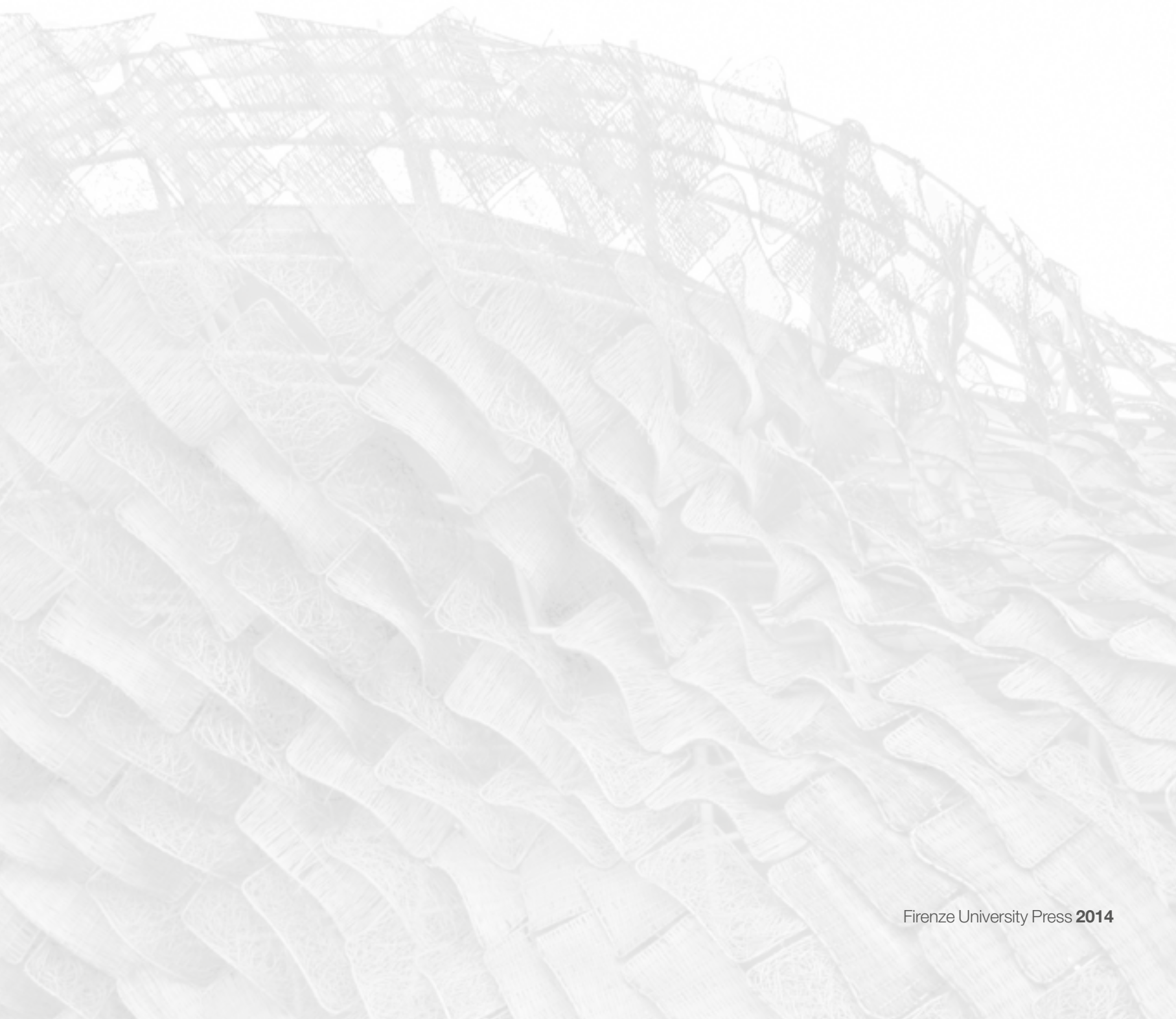
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Corbelled Domes dwelling near Aleppo, Syria,
(photo: S. Mecca)

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Collective and shared spaces

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Collective and shared spaces in vernacular settlements have extensive variations in use and morphology through Europe. Despite the influence of the Greco-Roman urban concepts and references in the European territory, vernacular collective spaces can constitute a distinct approach, as the spaces are not formal instruments of administrative and institutional representation. Therefore, this kind of spaces should not be confused with the western classical notion of public space, as they do not rely exclusively on the authority privilege over the private land use (Coelho, 2007).

The majority of the vernacular examples are the result of pragmatic strategies to facilitate the use and management of the settlement's main infrastructures. Specifically, they constitute interfaces between the settlement's inhabitants and the previous infrastructure network, adapted to the private ownership of the local system. The lack of resources and the scale of the settlement are proportioned with the involved collective effort in the embodiment of these elements, a fundamental premise in the attribution of the right of use amongst the community. This can result from the participation of single families, neighbours, or all the settlement inhabitants; but most of them allow the designation of specific property. These circumstances tend to evolve in complexity over generations, as the multiplication of the inherit-right can easily compromise the compatibility towards the settlement's communal interest.

This is generally intended to provide physical conditions for the development of the main local activities of subsistence. The more interesting cases can assume the role of instruments of mediation between the common available resources (natural and artificial) and the individual production, establishing in each settlement, the basic parameters for social cohesion and communal tolerance (Mandal, 1979). The most common examples of collective and shared spaces are elements of interaction with the water supply networks, storage facilities, livestock shelters and the processing of agricultural production of raw supplies. There are also examples of storage areas for large-scale objects and equipment. All the mentioned cases establish a fundamental connection to the settlement's circulation network, adjusting operability to the specific conditions of community mobility and transportation. This relation can be so significant that some of these places can constitute vital complementary spaces for the population main itineraries and activities circuits. This can be eas-

ily understood in the examples of strategic shelters that allow the crossing of harsh mountainous routes; the location of water wheels and waterholes in hot and dry areas; or the floating platforms and wharfs destined to support villages near lakes, rivers or riversides (fig. 1-5). These collective and shared spaces tend to be characterized, according to the evolution of the community subsistence, considering the upgrade of the collection capacity or the production increase. Consequently, they can also assume a more profound anthropological meaning, up to the point of creating social and specific religious rituals in the enclosures. Most of these spaces were progressively adapted to be articulated with modern religious ceremonies – as pilgrimage, burial ceremonies, patron saints homage and festivals – but it is not uncommon to find previous connection references to ancient Animistic traditions. Therefore, the origin of the sacralisation of the vernacular collective spaces is generally associated with the acknowledgement of natural deities – usually reflected in

Fig. 1 Washhouse, Antigua Guatemala (photo: G. D. Carlos).





climatic element actions – and the inhabitant's prosperity. In this socio-cultural aspect, there is a considerable parallel in the interpretation of the vernacular collective domain and the classical public concept (fig. 6-8).

Another significant aspect is the exceptional jurisdicive framework between the private and public domains, regarding vernacular examples. Generally, the vernacular spaces are a consequence of the endeavour of a private dynamic that requires additional conditions for its sustenance and development. This factor is an incentive to the hybridization of the property domain (Torricelli, 2009).



Fig. 2 Collective granaries in Dogon country, Mali (photo: M. Correia).
Fig. 3 Collective piers and platforms, Ganvie, Benin (photo: T. Joffroy).

The spaces and the elements are often shared. The common infrastructure can overlap the private land-right. In several regions, the application of a rotation for use rights is common. This has a direct influence on the preference for collective and cooperative actions regarding management and maintenance. This can be a requisite to overcome the uneven relation between the inhabitant's needs and the available resources. This feature also reflects a more sensible scale of intervention, where the oversizing errors and the function conflicts are less common (Chisholm, 1973).

The urban public spaces constitute central symbolical references in the community. Through time, they progressively acquire a collective sense of recognition by the community. When the urban public space has no reason to exist, it becomes an obsolete element, and it is easily abandoned. Sometimes, the cadastral surroundings have the organic capacity to absorb it, eventually closing gaps in the territory layout. A process that is practically impossible in the actual contemporary public domain framework. This can justify the higher percentage of abandon of the collective urban public spaces in the vernacular heritage (Carmona et al., 2007).

In the collective and shared spaces, the appropriation processes have a higher level of impact in the formalisation of elements and components. Collective demographics and economical variations have a profound and sudden appearance in the formal evolution. Usually, to face this vulnerable condition they resort to all kind of adaptable mechanisms that can be adjusted. This is another opposition to the classical public space, which is more rigid in definition and configuration. In the vernacular environment, most of the collective and shared spaces and equipment have a flexible configuration. In some cases, they even adopt a modular structure that admits extension or fragmentation operations, without compromising the function and relations with the surrounding built environment. Therefore, one may infer that their physical and conceptual limits are more informal, and less dominant in the geometric composition of the settlement's layout (Poza, 1979).

The spatial building processes in actual collective spaces are very similar to the ones implemented in the vernacular infrastructures, as they mostly rely on the mobilisation of a specific group inside the community. Once again, the articulation condition should be noted,



Fig. 4 Collective village hut, East Timor (photo: G. D. Carlos).



Fig. 5 Pasture shelter, Soajo, Portugal (photo: M. Correia).

as a great number of these items work as true infrastructural interfaces. When the benefit is too discrepant, even if they present similar functions and configuration, the domain is usually transferred from public to private. This characteristic tends to increase the sense of justice between the different community sectors, and to reinforce social cohesion.

The matrix grammar of the gathered and transitional elements, assumed as social mediators, coexists with collaborative logic conformation with spatial transformation and spatial appropriation processes, inter-related with diversity and flexibility. This perspective

implies the notion that the inhabitants 'invent' their own common spaces, often deprived of the rules that compose the consolidated and referenced public spaces (Bauman, 2000).

The population reorganises, assigns hierarchy, and manages the collective elements after construction. This generates the system's multiplicity, responsible for the constant renewal of use. It also enhances the constant and varied upgrade of these elements' structure, reflecting the plurality of the inhabitant's living, production and consumption. Conformation provides accumulation of dysfunctions and juxtapositions, expressing the overlapping of the different ap-

Fig. 6: Channels drains (*regaderas*) along the streets in Candelario, Spain (photo: M. Cadinu).



Fig. 7 Belfry's bell Tower in Măldărești, Romania (photo: M. Correia).



Fig. 8: Holly images and Pilgrimage itineraries: street shrines, Melgaço, Portugal (photo: G. D. Carlos).





Fig. 9 Spontaneous appropriation of outdoor spaces. Integration of recreational elements, Yazd, Iran (photo: M. Correia).

Fig. 10 Arcades along the middle age streets, as a place for meeting and selling. Astudillo, Spain. (photo: M. Cadinu).



appropriation forms and contributing to the involvement of the different fabrics, organisations and patterns. The recognition of this type of spatial configuration, which adopts temporary and volatile uses regarding collective living dynamics, assumes the importance of daily-life procedures of socio-physic assemblage and spatial acculturation. This enables them to be more adapted to accommodate inclusive and mutual actions amongst the community.

In short, when studying vernacular landscapes, it is possible to perceive another dimension implicit in the collective spaces, where very informal processes of humanisation continuously occur. The relevance assumed by specific elements, such as a fountain or a spring, a channel or a drainage trench, a container wall or an embankment, expresses with a surprising vigour the multiplicity of dynamics that can occupy this category of spaces. When served with efficient communication networks, these simple elements can easily evolve into true economic and cultural references. Many of the commercial areas of vernacular settlements present this sort of genesis (Beatly, 2000).

The formal configuration was the progressive result of the user's pressure and the neighbour's privacy needs, using everyday life appropriation as a design reference, through the addition of open areas support. Most of these specific elements, especially because of their scale, can seem insignificant at a first glance. However, they usually entail an evocative history and context, contributing to the individual and collective memory, and acquiring a predominant role in the expression of the collective spaces. Usually, depending on private action, they resort to adjacent structures, also of private domain. This feature implies that, formally, these elements cannot assume a central position in the configuration of the open space. Therefore, it is less visually predominant when compared with the classical examples of geometric orientation. This also concurs to the hybrid condition acquired by some of these collective spaces. Being attached to private elements, their limits and transitions are more ambiguous and vague, relying on a higher use of tolerance amongst all those intervenient. As most of the spaces and equipment evolve according to the logic of appropriation, the definition of the domains confinement is very reasonable, as it implies a permanent process of renewal through communal negotiation, where the borders of each domain can change without creating significant conflicts. Therefore, the consequent individual monitoring of the spaces, made by each

user and neighbour, reinforces the mentioned communal process of maintenance and upgrade (Provoost, 2010).

One fine example of this private-communal tight relation is the location of devotion figures within private elements. Usually, these devotion figures are positioned at the entrance of the property (over the fence, wall, the main gate or integrating the building *façade*), but always oriented to the public domain. This kind of tribute, of individual initiative, plays an important role in the collective memory, as many times, over time, it can become a reference in terms of the contiguous space organisation. It may influence the placement of other figures, and create a street unit component, in such a way that it may alter nearby routes of inhabitants and visitors. It can also stimulate the complementary nature of the context, adding architectural components (stairs, niches, pergolas, balconies, arcades, and porches); furniture; new materials or even to re-configure the geometry of the surrounding open space, offering better conditions to the community to contemplate the symbol. This evolutionary process is proportional to the acquired importance attributed to the original figure and the cultural dynamics it has meanwhile created (Romero, 2007). The contexts of human congregation require a constant renovation of processes in order to frame the communal intervention. This results from a new conceptual tendency of what may be called chameleonic genesis, which integrates and mixes urban processes of top-down and bottom-up approaches into spatial devices with intricate cultural components. In this perspective, the study of vernacular communal structures can be of great value to the contemporary urban planning. As stated by Sennet “we concentrate too much on visual legibility, and so on making legible landscapes through framing street corridors, or making public spaces without unsightly obstructions. The planner should counter the logic, by looking in another way. What need to be put on display are scenes of social mixture, in all their messiness and vitality” (2011, p. 45).

Weaknesses and lacks in the vernacular strategy

Possibly, the most significant constriction of collective and shared vernacular spaces is the difficult articulation with the use of mechanised systems. The circulation network required for the vehicles, either for agriculture or for transportation, cannot be easily adapted to the vernacular element’s configuration, as the scale and material



Fig. 11 Transition collective spaces. Common covered path between houses, Monção, Portugal (photo: G. D. Carlos).

Fig. 12 Circulation galleries in the Old Ksar of Beni-Abbes, Algeria (photo: G. D. Carlos).





Fig. 13 Public square in Madrid (photo: L. Dipasquale).



Fig. 14 Street in Villanova, Cagliari (photo: S. Ferrando).

resistance may not be compatible. Although the characteristic flexibility of the configuration might be able to permit some compromises, in many cases the dimension, the location site or the original construction system cannot accommodate the required changes without a full loss of character. From all the punctual interferences caused by the modernisation of the circulation network, the adaptation of these collective spaces to automobile traffic and the inclusion of parking areas, are by far the most problematic and are also the most exhaustively studied. Car parking and the demand of car access to private plots, where the habitation unit is situated, represent one of the greatest difficulties for the vernacular built structure.

Neither the dimension nor configuration of the vernacular spaces seems suitable for the actual available technology. Usually, this particular fact determines the acceptance of a different reality that cannot be easily integrated. The territory appropriations are approached as an asymmetric and unbalanced system that cannot always compromise with the modern human structure and system. For the new urban analytic tendencies, this is a comprehensive and a bearable

spatial condition. For most of the inhabitants from vernacular settlements, this fact is not so easily accepted, as this interpretation determines their abdication of a certain actual living condition. Usually, these have strong social and economic implications, as they feel it has a competitive condition reduction, that strongly reflects on the land value, the infrastructure connection, the building degradation and, ultimately, on the inhabitant's migration and the abandonment of settlements. In this particularly case, a close urban parallel may be drawn with the constriction observed in many medieval quarters of consolidated cities, or to the traditional pattern of Islamic cities, where recent necessary interventions have raised the same recurrent issues (Lofland, 1998).

The collective and shared spaces of vernacular propensity are indeed practical elements of the settlement fabric. The most important objective is to advance the main productive activities and to improve the conditions of communal interaction, but the design scale reference is always individual. Even if some cases can have a higher capacity for collective use or accommodation (fig. 13).