

MD Journal [Dossier]

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ESSAYS

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Narmomac Meets Pcademies 2024

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UN'IMMERSIONE NELLA PIETRA STONE DESIGN – LA BOTTEGA DEL FUTURO

Catalogue of the exhibition Verona, September 24th-27th, 2024

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Designing is a joy, but also a commitment, a great responsibility.

To Cini Boeri, on the 100th anniversary of her birth.

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THE STONE ARCHITECTURE OF THE EXHIBITION PAVILION

20th-21th Century

Renzo Lecardane

(University of Palermo)

Since the 20th century, the Exhibition Pavilion has become the privileged field of experimentation, an accelerator of ideational processes and, in some cases, a spatial device of constructive and material knowledge of the mutations of its time architecture. Because of its strong symbolic dimension and its constant presence in the history of architecture, the Exhibition Pavilion represents the privileged design theme for experimenting new architectural trends, granting the designer great compositional and linguistic freedom.

Its ephemeral nature connotes it both as the synthesis of a spatial idea to be projected within exhibition spaces and as a permanent memory of eternal works of architecture.

Archetype of temporary architecture for its expression of lightness, flexibility and adaptability, the word Pavilion derives from the Latin *papilio*, formerly a type of tent folded in the two front flaps that resembled the winds of a butterfly, in French *papillon*.

Embedded within the broad framework of national or international events, the Pavilion is the most evident space of certain antinomies: temporariness/stability, ephemeral/permanent, durable/provisional. The ex-



pressive potential of stone architecture has shown an important field of experimentation in the Exhibition Pavilion, making it possible to investigate certain spatial and constructive dimensions according to the material specificities of the natural stone used: thick cladding, load-bearing stone and load-bearing stone integrated with metal elements.

Thick Cladding, German Pavilion at the International Exhibition (1929), Mies van der Rohe. Photo by Gili Mearin

However, the ephemeral condition of the Pavilion did not prevent Mies van der Rohe from realising a monumental work in the history of architecture in Barcelona (fig. 01). In fact, the German Pavilion at the 1929 International Exhibition, characterised by the essentiality of horizontal and vertical planes, transparent, opaque or reflecting, did not renounce the research for design quality through a material texture expressed, according to Kennet Frampton, «in heavier materials, vert antique marble, onyx and various types of crystal of a translucent or transparent nature» [1].

The recent exhibition "Pierre – Révéler la ressource, explorer le matériau" by Thibault Barrault and Cyril Pressacco at the Pavillon de l'Arsenal in Paris (2018) has opened a window on the extraordinary potential of massive stone for contemporary architectural design in its various applications: recovery and modernisation



of traditional construction techniques or dissemination of innovative systems [2]. Although current trends are related to the thinning of stone material into slim textures, contemporary architectural culture, referring not only to the Pavilion, has rediscovered the use of load-bearing stone masonry construction systems.

In the Holy See Chapel realised by Eduardo Souto de Moura at the 16th Architecture Biennale (2018), large load-bearing stone blocks were used to define the Pavilion as an ancient monolith. In the essentiality of the plan, the enclosure is built of Vicenza stone blocks laid on top of each other with a different grain: rough on the outside, smooth and polished on the inside. Souto de Moura reinterprets the archetype of the sacred with a pavilion that is massive despite its small size, rooted in the ground and poetic precisely because of its essentiality (fig. 02).

Peter Rice's Pavilion of the Future at Expo '92 in Seville pioneered new ways of building with armour stone structures and innovative forms that influenced subsequent design practice (fig. 03). Rice's pavilion was in fact the first experiment, built with a structure of pink porrino granite and a system of cables and tie rods, which led to repeatable construction results that could be applied on a large scale [3].

In his book *Pavilions*, *pop-ups and parasols* (2015), Peter Cook re-enacted the role of pavilions in the event city, defining them «as platforms for change» capable

Solid Stone, Pavilion of the Holy See at the XVI Biennale of Architecture 2018, Eduardo Souto de Moura. Photo by Arch-Diap

of bringing visitors together in stimulating places and promoting new experiences.

While the role of the Pavilions has always been to share ideas, architectural concepts and new materials, it is currently the ideal field of application for experimenting with new structural forms through the convergence of tools related to computational design and digital fabrication with the aid of robotic manufacturing [4].

NOTES

- [1] Frampton, K., "Mies van der Rohe: avanguardia e continuità", in *Tettonica e architettura*, Milano, Skira, 1999, p. 203.
- [2] Pavan, V., "I linguaggi dell'architettura contemporanea", in Girasante F., Potenza D. (edited by), *Dalla pietra* all'architettura, Foggia, Claudio Grenzi Editore, 2006, pp. 37-39.
- [3] Dernie D., New stone architecture, Londra, Laurence King, 2003.
- [4] Lecardane, R., "Architettura di transizione. ImPrintig 3D", in Ruddo D. (edited by), Sicilia InForma 2014-18 Quattro anni di design insulare, Palermo, University Press, 2018, pp. 192-195.



Armour stone, Pavilion of the Future at Expo '92 in Seville, Peter Rice. Photo by JI FilpoC)