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AVANT-GARDE ARCHITECTURE



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HYPOSTYLE SPACE ARRANGEMENTS, A PROJECT BY AMANCIO WILLIAMS

ARANŻACJE PRZESTRZENI HIPOSTYLOWEJ, PROJEKT AMANCIO WILLIAMSA

Abstract

The solution offered by the compositional theme of the hypostyle space of Amancio Williams proposes an icastic idea of architecture as well as clarifying a civic idea.

Williams solved a practical problem through a specific technique and erected a place, in the form of a grand, evocative piece of architecture.

In designing the three hospitals, Williams conceived a high ceiling (*techo alto*) which resembles a large hypostyle room or a forest of trees or palms which protects and shelters a series of building blocks arranged following a complex and multifaceted functional layout as is normal in hospitals; a complexity which always renders a formal controlled response problematic.

Keywords: compositional theme, hypostyle, archetype, structure, concrete

Streszczenie

Rozwiązanie zaproponowane przez Amancio Williamsa jako kompozycyjny motyw przestrzeni hipostylowej stanowi zarówno propozycję naśladowczej idei architektury, jak i wyjaśnienie idei obywatelskiej. Williams rozwiązał praktyczny problem za pomocą określonej techniki i stworzył miejsce w postaci wielkiego, sugestywnego dzieła architektury.

Projektując trzy szpitale, Williams stworzył wysoki sufit (*techo alto*), który przypomina wielką hipostylową salę lub las drzew czy palm, który zabezpiecza i osłania serię brył budynków rozmieszczonych zgodnie ze złożonym i wieloaspektowym układem funkcjonalnym, jaki jest normą w szpitalach; złożoność, która zawsze sprawia, że formalna kontrolowana odpowiedź staje się problematyczna.

Słowa kluczowe: motyw kompozycyjny, hipostyl, archetyp, struktura, beton

Should we agree with the statement of principle that “creation [...] is largely a collective fact [whose] stable characteristics are the creation of an environment that is more conducive to life and the aesthetic intention”¹, then unquestionably the invention of the *bóveda cáscara*, the *techo alto*, and their possible application in numerous projects are a witness to this.

I have long thought that architecture, good architecture, can only ever be sustainable, and that, to be such, it ought to feature an effective beauty. In his work, Amancio Williams gave

¹ A. Rossi, *L'architettura della Città*, Clup, Milano 1978, p. 11.

proof of all of this, above all, at the end of the forties, in his hospital designs for the Province of Corrientes in Argentina, where this emerged prominently.

Initially an engineer and aviator, Williams ended up embodying the figure of an architect imbued with deep humanistic convictions and an essentially modern way of thinking.

First and foremost, to qualify his thought within “an ineluctable adherence to the expressions of modernity” and “a desire for formal, organizational and technical improvement”, came novel techniques, alongside contributions from the avant-garde and artistic movements which were enlivening Argentine culture at that time.

The technical side, which Williams always showed a penchant for and interest in, epitomized the progress to be sought and conquered, while his architecture questioned how it itself could be transformed by innovations, technique and scientific progress.

In sync with various Argentine movements and avant-garde schools (as a member of the Austral group and a supporter of “concrete art”), Williams headed for the proposed places and occasions, thus developing his own thought within an innovative current which was attempting to bring the country closer to the ideas of modernity, advocating utopias which seemingly possessed the power to change the world.

Without retracing the entire history, well-illustrated by many other texts, including those of Luis Muller to which I refer², I should like to highlight some potential in the projects for the hospitals of Corrientes, of this idea of architecture from a conceptual and technical point of view.

The hospitals project was part of a Ministry of Health programme, begun in 1948, which intended to organize an integrated, countrywide health system that would include the building of hospitals throughout Argentina. All of which was taking place within a broader political framework-and also incorporated a major intervention by the State in the form of public works pursuing President Perón’s “mass policy”.

The work on the hospitals coincided with a period of intense activity for Williams overall (including a collaboration with Le Corbusier for the construction of the Curutchet House) which saw him engaged as a “promoter of a modern architectural culture”. Williams certainly had a strong interest in the technical dimension of architecture alongside adherence to the expressions of modernity, coupled with a desire for formal, organizational, and technical improvements.

The design of the hospitals, to be built in rural areas, required a consideration of traditional architecture which, together with the stipulations of the Minister (requiring that all functions be distributed mainly on the ground floor), meant a challenge for the contemporary project.

To understand these designs it is important to remember that, in July 1948, Williams made a trip in person to the province of Corrientes. This province in the northeast of the country wedged between the borders with Uruguay, Brazil and Paraguay has always represented a condition of isolation. Its territory is mainly flat with the presence of large bodies of water in the interior: estuaries, streams, and lagoons. The climate is subtropical, very hot and humid, with strong sunlight and intense rainstorms.

The photographs from this trip, as taken by, among others, Luis Muller, show old buildings featuring porticoes. These were designed to curb the impact of the sun, both streetside

² L. Müller, *El edificio como experimento. Amancio Williams: tres hospitales y un Sistema* [in:] H.L. Mondragón, C.M. Moreno (eds.), *Sudamérica Moderna. Objetos – Edificios – Territorios*, ARQ – PUC, Santiago de Chile 2015, pp. 132–147.

and in the courtyards. The photographs show the contrast between the amount of light in the streets exposed to the sun and the shade projected on the pavements and façades, allowing us to construe the temperature change generated by this simple yet effective “air-conditioning” procedure. Williams grasped these characteristics of popular constructions and tried to interpret them in new buildings which needed to respond to a modern language without renouncing their basic nature.

Williams solved a practical problem through a specific technique and erected a place, in the form of a grand, evocative piece of architecture; in one fell swoop, he had come up with a practical solution and a style of architecture that was replicable, at least in certain climatic contexts.

In designing the three hospitals, Williams conceived a high ceiling (*techo alto*) which resembles a large hypostyle room or a forest of trees or palms (*a selva* as the Latin Americans would say) which protects and shelters a series of building blocks arranged following a complex and multifaceted functional layout as is normal in hospitals; a complexity which always renders a formal controlled response problematic.

The high ceiling provides shelter from the sun and rain while allowing light to enter. The buildings below it enjoy continuous shade while the air between the roof and the buildings underneath it ensures natural ventilation: all of which serves to lower the temperature in a climatic zone lying very close to the equator. As mentioned, Williams certainly grasped this necessity by observing traditional architecture, but his solution, “an artificial forest”, was an architectural invention. An invention in the sense of a discovery or rediscovery; “Inventing meant remembering; remembering a thing was to invent it,” as a great American director once said.

The idea, the eureka moment of the high ceiling, would, in its essence and simplicity, already be something remarkable from a technical point of view, but it was the development of the formal element that characterizes it and defines its architectural character which really shows its huge expressive power.

This self-supporting structure presents a “powerful image”. The structural module, the shell vault, the *bóveda cáscara*, (later also called *sombrilla*), on a square plan mounted on a column presents the image and corroborates the idea.

The structural element underwent a long and complex development process, from the initial notions to the final versions. As Luis Muller wrote,

It is a structure which covers a square module, a double curved surface that solves the transition between the square shape of the perimeter and a central circle, coinciding with the arrival of the hollow column of the circular mast that supports it and through which it drains rainwater. When coupled along the edges, a continuous surface is produced from which modules or segments can be removed to allow natural light where required.

And again, “The challenge of resolving the structure technically, in the absence of scientific calculation methods, involved experimental procedures using tests on models”³ for which Williams availed himself of the advice of the Italian engineer Giulio Pizzetti – at the time based in Buenos Aires – who collaborated with Pier Luigi Nervi.

The concrete sheet that forms the surface is about 5 cm thick at the edges (...), producing an effect of unusual lightness and dynamism for a structure of this magnitude. Modules with sides

³ *Ibidem*.

of 9, 11 or 13 m were designed, and the continuity given by connecting these modules would generate a rectangular surface – which in some cases could reach 121 m on the main side and 66 m on the shorter side – to define a perimeter that could extend indefinitely in either direction, fashioning different models and generating a landscape in its own right.⁴

The vault is an original structure which experimented, like others at that time, with reinforced concrete shells whose form gives them strength; this is an idea, as has been repeatedly observed, similar to the aesthetic lines promoted by such contemporary currents as *Die gute Form* as developed and promoted by Max Bill. An idea which ranked Williams' work within an international dimension.

Consequently, it is a *forest* of shell vaults supported by columns arranged on a square geometric grid which defines the high ceiling, the hypostyle space of the hall and the boundary of the building. Inside, by removing some modules, patios and courtyards can be defined, allowing light to enter directly and clarify the hierarchy of the spaces. This also offers the possibility of developing, beneath the ceiling's "protection", compositions that are quite free to respond to extremely complex functional and distribution layouts.

The hospitals themselves were never built, but over time William's idea found multiple applications in later projects and in some realizations, allowing him to continue to perfect the architecture and above all the construction technique which underlay the idea. These interchangeable elements, the vaults, developed starting from the hospital experience, speak clearly of Williams' conviction on the validity of his proposals and the possibility of their transfer to different situations (at least within a certain climatic zone), underlining his search for a systematic architecture.

Among the numerous examples designed – and some actually built, were the project for a service station in Avellaneda (1954–1955), a house in Punta del Este (1961), a monument in honour of Alberto Williams (1963), and the Bunge and Born exhibition pavilion in Palermo (1966).

A tribute to this idea was realized with the construction of the partial roofing of a collective space in a public square undergoing redevelopment in Santa Fe (*El Molino, Fábrica Cultural*, 2010) in Argentina. The centre of the square, defined by a forest of columns which support the "umbrellas" (*sombrillas*), offers passers-by an area of shade and relaxation while disclosing a recognizable civic space. It was here, in this place, that I discovered the potency of this idea.

The solution offered by the compositional theme of the hypostyle space proposes an ionic idea of architecture as well as clarifying a civic idea. This architectural design expresses the idea of the city beneath a "communal roof", presenting itself with its own formal autonomy, expressing a certain character, and allowing anyone to build a certain kind of architecture in the free space below. The roof, which defines an "Order" in the construction of the place, is tasked with representing the civic values of this architecture, while the ground plan follows the demand of the scheme.

The compositional theme or themes are highly evocative and open the narrative up to further readings; at heart, this is a poetic fusion, around "forms without evolution", where "analogies are exterminated". The compositional theme chosen by Williams evokes an original architectural space, one necessary in the conception of the architectural space; Le Corbusier too touched on this origin, stating remorsefully: "Architecture today no longer remembers what originated it"⁵.

⁴ *Ibidem*.

⁵ Le Corbusier, *Verso una architettura*, Longanesi, Milano 1979, p. 8.

And again, if the *forest is at the origin of the city*, as Vitruvius stated, then it is also at the origin of architecture, “The archetype of this *communal place* is the *lucus*”⁶, the sacred wood for the ancient Romans.

As George Hersey described it, “(...) before temples existed, the Greeks worshipped their gods in woods or in consecrated fields: they believed that trees (...) and other natural elements contained deities, which therefore were the object or instrument of religious sacrifices”, and then referring to Pliny he affirmed, “trees were the first temples”⁷. Again according to Hersey,

There is an element of truth in Vitruvius’ assertion about columns deriving from trees. (...) any such wooden temple column would in a sense be a sacred tree or tree trunk, especially since columns, like trees, had from prehistory been worshipped as the abodes or images of gods.⁸

Through the reference to the archetype of the *lucus*, Williams proposed an “original space” for the construction of a civic architecture that wished to be intelligible.

The archetype reveals the immemorial memory that unites the living of the most varied historical communities. In fact, incorporating the archetype into the architectural project means suggesting a story, a narrative, that is, a provenance and destination of the life forms.⁹

As regards the value of the archetype in the architectural project, I would also like to touch on some other considerations, recalling with E. Zolla that:

The synonym of archetype is a forming form or idea. The idea, the intrinsic formativity that manifests itself in every object, is grasped thanks to an intuition; it is not the product of inductions and calculations, an idea imposes itself, lights up, pops up in the mind: reveals itself.

Ultimately, “Archetypes are therefore unifying patterns charged with emotional and symbolic energy: significant meanings”¹⁰.

The high ceiling, (*techo alto*) also recalls August Perret’s theorem, his idea of architecture that emerged in his theoretical-poetic text *Contribution à une théorie de l’architecture*, in which he identified in the *abri souverain* (which could be translated as “sovereign shelter” or “noble harmonious shelter for man”), the quintessential idea of architecture, and takes us into the world of construction.

(...) Architecture is the art of organizing space,
it is through construction that it expresses itself. (...)
Architecture is, of all the expressions of art,
that which is the most subject to material conditions
Permanent are the conditions which nature imposes,
transitory are those that Man imposes.
The architect is the constructor
who fulfils the transitory through the permanent.

⁶ I. Clemente, *Lucus*, Aiòn, Florence 2016, p. 11.

⁷ G. Hersey, *Il significato nascosto dell’architettura classica*, Bruno Mondadori, Milano 2001, p. 12.

⁸ *Ibidem*, p. 15.

⁹ I. Clemente, *op. cit.*, p. 15.

¹⁰ E. Zolla, *Archetipi*, Marsilio, Venezia 1988, pp. 66, 68.

*It is he who,
by the grace of the union of science and intuition
conceives a portal, a nave, a sovereign shelter
capable of receiving in its unity
the diversity of the organs necessary to the function.*

*It is by construction that the architect
Fulfills both the permanent and transitory conditions.*

*Construction is the mother tongue
of the architect.
The architect is a poet, who thinks and speaks
'under construction'. (...)¹¹*

In this text, in resolving the relationship between the “permanent conditions” and “transitory conditions” which condition the architectural project, Perret defined the idea of a constructive and architectural system, *abri souverain*, which, in supervising implementation of the skeleton/framework/*charpente*, determined the architectural theme. By “sovereign shelter” is meant a large roof (as for a hall) supported by a giant order of columns whose reference is the large collective buildings of antiquity, first and foremost, the classical temple and the Gothic cathedral, as already mentioned¹². The sovereign shelter chosen defines the “permanent conditions” of the architecture and in clarifying the dimensions, joints and proportions of the skeleton, determines its architectural theme.

The layouts and the dividing walls of the trabeated structure respond to the “transitory conditions”. However, the ground plans are never “free” as the idea of the *abri souverain* might suggest, but are equally subject to a compositional programme which provides such identifiable architectural qualities as: harmony, proportion, and scale.

The value attributed to the construction by Williams, as in the work of some great architects, therefore shows us “how constructional form and material character were integral to an evolving architectural expression of their work”, assigning a particular importance “to the art of building as an intrinsically poetic act”¹³.

Mies’ statement: “(...) our real hope is that they [architecture and technique] will grow, that one day each will be an expression of the other”, represents the meaning of the work of an architect who has determined a technique and therefore created an architecture or a “constructive clarity brought to its exact expression.”

And thus, it was that Williams brought his construction idea to an exact expression; the idea linked to the technical possibilities of his time, to the appropriate use of reinforced concrete which offered a stable form and a choice of decoration that transformed practical construction into architecture. And he did so through the *techo alto*, and the *bóveda cáscara*, without losing sight of the architecture’s “origin”.

¹¹ A. Perret, *Contribution à une théorie de l'architecture*, “Techniques et Architecture”, January 1945, 9 April 1952. The extracts used are taken from the text of 1945.

¹² R. Gargiani, *Auguste Perret 1874–1954. Teoria e opere*, Electa, Milano 1993, p. 118.

¹³ K. Frampton, *Tettonica e architettura. poetica della forma architettonica nel XIX e XX secolo*, Skira, Milano 1999, p. 197.



Ill. 1. *Monument to the End of the Millennium*, a homage to *Amancio Williams*, photo: Daniel Tiozzo.



III. 2. Roofing of a collective space in a public square in Santa Fe (El Molino, Fábrica Cultural, 2010) in Argentina, photo: Gino Malacarne.

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