

## English summary



### Arcadias under glass

#### Thermodynamic types: from hothouses to solar houses

Keywords: hothouses, solar houses, typology, thermodynamics.

Greenhouses and hothouses have tended to be seen as little more than an anecdote in the history of construction, although they were in fact the most innovative architectural type in the 19th century. Combining rigorous attention to climate problems with use of industrial materials and new heating systems, greenhouses gave rise to highly efficient formal and technical solutions that lie at the base of contemporary passive design. This article gives an account of the origins of the greenhouse, its development and consolidation as a thermodynamic type, and its rapid extrapolation to other uses, by now turned, as the greenhouse was, into a 'pseudomorph,' and concludes by revealing its intimate relationship with the so-called 'solar houses' of the 20th century.

*Eduardo Prieto*



### The shape of the contemporary glasshouse and the incidence of sunlight

#### Analysis of three cases: Climatron, Graz and Madrid

Keywords: glasshouse, botanic garden, sunlight, Twentieth Century, World War II, climate control, solar chart, Climatron, glasshouses of Graz, Santiago Castroviejo glasshouse.

The incidence of sunlight is one of the most important aspects in the design of a glasshouse, due to its function of recreating a climate different from that of the latitude in which it is located. However, although it may seem that this is the determining factor in the formal configuration of a glasshouse, there are many other parameters to be considered. This article analyzes three landmark glasshouses after World War II, and observes the aspects that, in each case, have predominated over what would be the ideal shape with regard to the incidence of sunlight. In the first glasshouse, the question will focus on the imposition of a specific structural form and system, in the second one, on the dynamic composition of the whole, and in the third case, on the integration of the glasshouse in its location. The three glasshouses have in common the compromise that their solution presents between one and other parameters.

*María Sanz Sánchez*



### Constructions in Jerusalem

#### Continuity in building, city and territory

Key words: architecture in Israel, architecture in Jerusalem, Hebrew University -Givat Ram Campus-, Israel Museum; Yad Vashem Holocaust Museum.

This article deals with constructions in Jerusalem and, among those, three complexes: the Hebrew University -Givat Ram Campus (1954-1958)-, Israel Museum (1960-1965) and Yad Vashem Holocaust Museum (1957-2005). Constructions that establish a continuity of concept, architectural expression and circumstances of the site, and interesting links among them. These buildings are not only chosen because of their architectural quality and emblematic character, but because of the renovations carried out (mentioning the synthesis between tradition and time spirit) and the training, wishes and convergence of the protagonists in different periods.

*Marilda Azulay Tapiero*



### **The Influence of Southern Chile's German Colonisation on Traditional Housing Architecture - from Valdivia to Puerto Montt**

Keywords: traditional housing, Chile, German immigration, colonisation project, timber architecture, Chiloe carpenters, Llanquihue lake.

The effective occupation of the southern Chilean territory happened in the second half of the twentieth century. This was possible thanks to key measures dictated by the State through the so called 'colonisation project', which enabled the arrival of European immigrants during a period of large migratory movements towards the American continent.

The city of Valdivia was the project's starting point, with the arrival of settlers from the German Confederation in 1845. It was here where the first cultural exchange between locals and foreigners took place, in a 'building laboratory' that set the basis of colonial architecture and was the origin of southern Chile's traditional housing types.

The architectural variables generated during this colonisation period were identified through a study of the local history and constructive methods. It was possible to prove their existence in various examples of traditional dwellings within the territory occupied by the German settlers from 1845 to 1875, between the cities of Valdivia and Puerto Montt.

*Jocelyn Tillería  
Fernando Vela Cossío*



### **The architect as educator of the society**

#### **The Frederic II monument between the years 1787 and 1797**

Keywords: education, regeneration, monument, philosophy, process..

The competition for the monument to Frederick II was first convened on 25 January 1787, at a time marked by the deep crisis that at all levels suffered the Holy Roman Empire. The need to reverse the bad situation made that an important part of the German intelligentsia pointed to education as the only possible way of regeneration. In this sense, a number of sculptorical proposals related the monarch to the figure of the philosopher. On the other hand, the projects presented by Hans Christian Genelli, Carl Gotthard Langhans, Heinrich Gutzow and Friedrich Gilly, employed different strategies using architecture as a means to produce an improvement in life of man. They were from the mere aesthetic embellishment posed by Langhans, passing by the abstraction capacity of the beauty claimed by Gutzow, to the building educational program designed by Gilly who, with his proposal for the monument, conceived a mechanism capable of transforming the ruler into a philosopher.

*María Montoro Rodríguez*



### **The Swiss Pavilion and the Spanish College in Paris**

#### **A comparative analysis**

Keywords: XXth century architecture, tradition and avant-garde. Le Corbusier, Pavillon Suisse, Colegio de España, Cité Universitaire of Paris.

The Cité Internationale Universitaire de Paris was born in a Europe that, after the War of 1914-1918, reformulated its university models. Its buildings present an extensive architectural register that goes from National styles to Modernism, making the Cité a reflection of the plurality of 20th architecture. The Swiss Pavilion and the Spanish College reflect that plurality. If the Pavilion is an emblem of Modernism and Corbusean architecture, the College symbolizes the commitments still in force with Academicism. The coincidence of the program and the parallelism of the place allow us to confront and to analyze them comparatively. Based on documents deposited in the Cité Universitaire, the Swiss Pavilion, the Spanish College and other archives, this paper intends to explain and analyze its architectures, opposing their works in order to better understand them and to understand an historical time that debates in all Europe between Tradition and Avant-garde.

*José Ramón Alonso Pereira*



### Jørn Utzon: Platforms and recints in Højstrup

Keywords: Jørn Utzon, platforms, Højstrup, Sydney Opera House.

This article analyzes the project of the Danish architect Jørn Utzon (1918-2008) for the construction of the Union School of Danish Workers in Højstrup, Helsingør (1958-1962), from the two proposals submitted to the competition, which obtain the First and Second Prize, to the versions of the project that simultaneously develops during the Sydney Opera House project (1956-1973). The analysis of the evolution of the Højstrup project allows to analyze the plastic talent and the universe of extraordinary lyricism of the architect, through the formal exploration that develops around the platforms and the enclosures, to the relation between the two elements of the typological scale, the tower and the lower block, the study of the mechanisms of access through the porte-cochère, the aggregation system of the patio houses or the role played by the structure in the project, in an exercise of architectural exploration flowing from the competitions proposals, understood as laboratories of formal experiences, to the slow and gradual development of the successive projects taking care of both the site and the typological piece, in a careful plastic innovation that claims the constructive experimentation and the integration in the landscape

*Jaime J. Ferrer Forés*

### The Upper Lawn Folly Solar Pavilion The Smithsons English garden

Keywords: Alison and Peter Smithson, Upper Lawn Pavilion, garden, landscape, Picturesque, cottage garden, folly, gazebo, garden room, glass room.



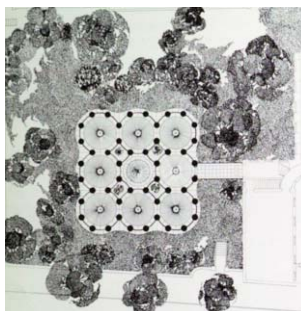
This article contributes a new point of view: consider the Upper Lawn Pavilion by Alison and Peter Smithson as an intentioned heir to the English gardening tradition and especially the Arts and Crafts garden, with references to Edwin Lutyens and Gertrude Jekyll, among others.

The research delves deeper into the analysis of the pavilion as part of a small domestic garden and, in turn, in relation to the landscape. The weekend house of the Smithsons is a "cottage garden" with its topiary peacock, set deep in the great idyllic garden of the Fonthill estate, fruit of the best Picturesque English landscape tradition. It represents the types of constructions for the garden, with a long and deep tradition in England, reinterpreting simultaneously the concept of "folly", "gazebo", "pavilion", "garden room" and "glass room".

*Ana Rodríguez García*

### The instrumental recovering of History in the Dumbarton Oaks Pre-Columbian Pavilion

Keywords: Philip Johnson, contemporary architecture, Dumbarton Oaks, Mildred Bliss.



The small, delicate pavilion intended for the expansion of Dumbarton Oaks Museum has been a work forgotten or feared by critics whose author, brilliant architect Philip Johnson, stood out at that moment as a strong advocate of the recovery of those values of History and the encounter of Architecture with Nature. His contact with Mildred Bliss and his experience in Dumbarton were decisive for the transformation that Johnson, a radical architect of steel and glass, went through. The aim of this article is to delve in disclose the values of this relevant relationship between Architecture, History and Landscape and vindicate this work as a key piece for understanding the critical review undertaken by modern architecture in the 1950s.

*Ramón Pico Valimaña*

### Surrealism in the Burle Marx landscapes "Roberto Burle Marx paints with plants" Lucio Costa.

Keywords: Roberto Burle Marx, modern landscape, garden of the Ministry, Surrealism, biomorphism, Jean Arp.



Brazilian artist Roberto Burle Marx completely revolutionized the modern landscape design in the 1930s by projecting the terrace garden of the Ministry of Education and Health of Rio de Janeiro in a pictorial way. In this project, he invented an astonishing compositional mechanism in which the Biomorphic Surrealism became a heavenly three-dimensional space built entirely with plants. Taking Jean Arp works as a reference, Burle Marx created a method of overlaying chromatic-vegetal layers, adding his finding to those that had occurred in Europe in the previous decade in avant-garde art, with the contribution of modern architects. The result is an exercise in cultural anthropophagy by which the sensual curves of Brazilian landscape become surrealist abstractions, that influence the production of architects such as Oscar Niemeyer.

*Darío Álvarez Álvarez*





### **Paco Rabanne: architect without architecture? Transposition of technics and materials between disciplines**

Keywords: architecture, fashion, Paco Rabanne, Avant-garde, materials, forms, parallelism.

Architecture and clothing are, seemingly, antagonistic disciplines. But throughout history we can see how architects have written about fashion, have built buildings in its service or even designed dresses or accessories. Similarly, many couturiers and fashion designers have found inspiration in architecture. They have inherited its tools or have collaborated with recognized architects for the conception of their designs.

The figure of Paco Rabanne sets a new paradigm in fashion design. Trained as an architect at l'École de Beaux Art in Paris between 1951 and 1963, going on to apply his architectural knowledge creating dresses. Influenced by the artistic avant-garde, as well as by the use of new materials and forms in the architecture of the moment, his work bursts into the panorama of the convulsive 60's, blowing up the traditional conception of fashion design. He introduced materials and techniques foreign to fashion, but proper to the construction of buildings. His innovative character contributes to establish a parallelism, hitherto undeveloped between the two disciplines.

*Marta Muñoz Martín*



### **The object in the frame of life Over the role of the object in the configuration of the contemporary domestic space**

Keywords: configuration space objects, contemporary domestic space, interior design, objects housing distribution, furniture exhibitions.

In the contemporary domestic context, which the new ways of life claim more open and freer, objects participate in the organization and qualification of the space thanks to their new semantic facet. In this configuration process the elements act, on the one hand distributing and ordering, organized in systems based on geometric and topological relationships, and on the other hand adding a new psychological dimension to the new areas, remaining as symbolic elements or acting as mechanisms that influence the spatial experience and its perception. In this article, an approach is made to the vision of the object in the contemporary framework following the sociological studies of Baudrillard, Moles or Barthes, among others, and through exhibitions and fairs of furniture and household items that proliferate from the 60's in a consumer society. Also establishes a system of analysis that determines a correspondence between characteristics and qualities that are typical of contemporary domestic space and the modes of action of the objects in such environments, noting, this way, that the objects contribute to configure areas with certain properties thanks to their modes of relationship and connection into the space.

*Manuel Carmona García*



### **Architecture and landscape of the modern industry in Alcalá de Henares**

Keywords: industrial architecture, Modern Movement, development policy, Alcalá de Henares, peripheral landscape.

The quick industrial growth of municipalities such as Alcalá de Henares during the 50s and 60s of the last century will produce radical transformations in its urban morphology and landscape, but in turn will stimulate the emergence of a modern architecture of industry, as symbol of the Franco's regime development policy. Industrial complexes that synthesize the international discussions on the modern industrial project in its double formal and technical aspects, and expressive of both the competitiveness of the companies and of the modernism's inflections in this period, bringing together productive efficiency and formal singularity as corporate image.

*M. Ángeles Layuno Rosas*