

ENGLISH ABSTRACTS

INTRODUCTION. EVERYTHING IS POSSIBLE IN BILBAO

Manuel Blasco Blanco

The Jesuit order, the historical educators of the Bilbao society, occupy a preferential place in a city renewed with the change of the millennium. Time of renovation, not to mention change, in which the school tries to modernize without leaving the heart of Bilbao. The buildings, developed over different eras, need a renovation which is cohesive and unifies the block which they occupy. Also, the large sporting activity of the school offers great value to the available grounds. The project responds to these two questions creating a building with great character, an 8 meter high connecting bridge, that gives order to the set of buildings keeping the size of the patio, and another building that consolidates the corner of the block and triples the available surface when building a parking garage and two covered sports tracks vertically. The project was convincing technically, economically and officially to the school and the parents, a fact that supported the creating team on such an ambitious and forward looking project. Everything is possible in Bilbao.

BUILDING IN BILBAO

Manuel Blasco Blanco

"Technique as a tool that makes architecture possible." technology as a constructive language in a certain place and time." In architecture, the building is created along with the project. To draw is to construct. Architecture has its maximum expression in the constructed fact. Technique is mutant and innovating. The architect who searches, finds intertwined paths to experience in each project. But technique must coexist with the project until becoming one, incorporating the constructive logic to formal desire, using its characteristics as language. In Indautxu, the project and matter are one: the metal allows us to build large lights, its use in the facade is light, signifying flight and comprises the traditional construction of the city; red brick, mass, makes a center and are similar to the predominant material in the neighborhood; among these two contextualizing materials, the glass lights. The constructive solution is inherent to the project and the place, not only because of its direct reference to building tradition, but also the indispensable presence of the mastery of technique used by the builders of the city, this aspect guarantees the project and highly valued.

LIGHTING TECHNIQUE APPLICATIONS

Agustín Pérez Martín. Philips

The power saving strategy of EBI T. ELECTROTECNIC. has led us to jointly develop with a lighting equipment manufacturer, waertight 4*49W lighting equipment. This equipment has been used in lighting a school sports track situated in the center of Bilbao. The case before us is a clear example of a typical structure adapted to the necessities of the project in which the necessities of an exceptionally complex "lot" are brilliantly combined with formal aspects that are perfectly integrated into the surroundings and structure (the beam of the lattice window) that adapts to all.

HOW TO BUILD A BUILDING-BRIDGE. STRUCTURAL ASPECTS

Rufino Goñi Lasheras

There is, among architecture students, an instinctive tendency to separate all the practical aspects of the project and to keep the merely formal aspects. This leads, irreversibly to serious problems at the time of defining the final stages of the project, generally, facilities and structures. These cause serious headaches that make the student "pay" an aesthetic price so that the project conserves, as far as possible, these formal aspects. All this would be avoided by jointly developing design, facilities, construction and mainly structure. The classic question of what came first, the chicken or the egg, can be applied to architectural projects in the following terms: is it the structure to the project or the project to the structure? We can find examples in which, once the project is defined, the structure adapts to the form conceived by the architect. Perhaps the clearest example is the Guggenheim of Bilbao, in which SOM engineering of Chicago played an essential role in the adaptation of the structure to the Gehry project. On the contrary, the construction of urban houses, constantly adapts the three-dimensional concrete porch to the definition of the building in which the distributions and the external aesthetic aspects are changed.

BLOCK OF FLATS IN SARRIGUREN

Conrado Capilla Frías / José V. Vallejo Lobete

The definitive layout of Sarriguren has a hybrid character. From its origin, conceived simultaneously with ambition based on its urban aspect, illusion with sustainability, it has evolved - perhaps inevitably, to the pragmatic and conventional. In this way, Sarriguren, in the end has been surrounded by buildings with a layout and an image that are strange to it. Within this context, the building is located in a privileged place, between the town of Sarriguren and the lake, so that it will partially be the image seen from the north of the new Sarriguren.

52 HOUSES NEXT TO THE MOTORWAY

Ignacio Ruiz Allén / Josean Ruiz Esquiroz

The project is located in the outskirts of Pamplona, although it could well be in the environs of any motorway. In this case, the view of the knot of highways that runs from Pamplona to Zaragoza, Barcelona and Madrid, towards the north, and Jaca and the Pyrrenes towards the East can be enjoyed from the houses. The shape, alignments and heights, were dictated by an urban plan that tries to show a new facade to the motorway hiding the "back" of the blocks of flats that arise towards the N-121 motorway, the old spine of Navarre. We start with a building between curved dividers, 15 meters deep and a lower height of + 6.

PONTE DE LIMA RENOVATION

Joao Alvaro Rocha

The area of renovation included in the study, in spite of being a small project physically was relatively large if compared with the actual size of the villa, it is rich in complexity due to the successive transformations it has undergone over time – truly a place full of history. These transformations and the memory that they contain, through the simple reading of the premises, the erudite study of its genesis or of the memory of its inhabitants, are what lends it its naturalness. Thus the spirit of a place defines itself. If this were not understood or misinterpreted, the project would be doomed to failure, either because arrogance robs its soul or through timidity is not able to touch it.

CULTURAL CENTER IN VILLA DE PRADO

Jose María de Churtichaga Gutiérrez / Cayetana de la Quadra-Salcedo Capdevilla

The new Cultural Center of Villa de Prado solves the rehabilitation of a large, old protected house, and its extension for cultural use and attending to senior citizens, required by the town. The building occupies a lot across from the Main Square, next to the most valuable buildings of the urban centre, the City council and the Church of Santiago, one of the best examples of gothic architecture in the Community of Madrid. These buildings impose a precise architecture of scale on the project, a careful use of materials and a fit to the place in all aspects of its spacial organization.

HYDROGEN AND FUEL BATTERIES. AN EFFICIENT POWER USE IN HOMES

Mónica Aguado Alonso / Beatriz Alzueta Ibañez / Raquel Garde Aranguren

In this article, a general vision of hydrogen and fuel batteries and their integration within the residential sector, as a way to increase energy efficiency, reducing at the same time, green house gases as an alternative to fossil fuels, increasing and improving the integration of renewable energies with hydrogen and its technologies.

ACTIVE TRANSPARENT FACING (ATF) IN AIR CONDITIONING AND HEATING APPLICATIONS

Antonio Arenas Alonso / Francisco Luis Pagola de Heras / Rafael Palacios Hielscher / Ramón Rodríguez Pecharromán / Jorge Vázquez Árias

The present project presents/displays the theoretical experimental studies and carried out up to the present on a heating system denominated Active transparent Facing (ATF) created for its use among others, with air conditioning applications through the window spaces in homes and locals, totally or partially replacing the present windows with the ATF system, which apart from maintaining a sufficient lateral visibility and transparency, functions as a heat pump in any direction (from the interior towards the exterior or vice versa).

FIRST DRAFT OF URBAN HEATING IN PAMPLONA

Débora Bezares Fernández / Laura Elvira Tejedor / César Martín Gómez / Laura Rives Navarro

In October of 2003, in the archives of the Building Department at the School of Architecture of the University of Navarre, a compilation of plans and written documents titled: Draft of Urban Heating in Pamplona, signed by the industrial engineer Joaquin Castiella in June of 1961, were found. Castiella took these documents to the Department along with the rest of his personal library when he was professor of the School of Architecture. Rescued from the forgotten archives, this first draft is a discovery of extreme interest which is placed within reach of those interested in urbanism and urban infrastructures. This article tries to transmit the content of Joaquin Castiella's project and to place it in a technical and historical context permitting us to understand it.

MODERNISM, ARCHITECTURE AND HEATING. INNOVATIONS IN FRANCE, 1900-1939

Emmanuelle Gallo

Modern architecture is generally associated with the technical innovations that generated a new set of aesthetic concepts. The radical revolution in heating systems already had taken place in the previous century. But the beginning of the 20th century were not a period without interest; in the field of heating, significant improvements occurred of which we will speak in this text.

RECOVERY OF WOOD STRUCTURES THROUGH GRAFTS. RECOVERY OF TRADITIONAL ELEMENTS

Mikel Landa Esparza

The present article deals with the development of a concrete project; the structural recovery of the main deck of the Church of Santa Maria de Salvatierra in Álava. During the 70s, a series of renovations were carried out, both in the structure and in the ceilings. The renovation on the ceiling of the main nave, consisted of placing strap joists and new boards upon the existing segments; on top of the boards, a reinforced concrete layer was laid commonly known as compression, and ceramic tiles placed on cement mortar.

SEVERE CLIMATE CONDITIONS: THE CONSTRUCTION OF MODERNIST BUILDINGS IN SIBERIA IN THE 20s AND 30s

Ivan Nevzgodin

Siberia is associated generally to the cold, the snow, the dark, exile and danger. Nevertheless, this region normally sees variations in the climate. The Transiberian railway line to a large extent crosses through a continental climate with warm summers (+30°C) and freezing winters (-30°C). Since the climate changes very gradually, people and some tall buildings do not perceive this extreme difference as a drama. Still more, the route of the Transiberian is not dark. Even in winter there are many sunny days.¹ But how do you focus the construction of buildings in this continental climate?

COMMENTARIES ABOUT THE VERIFICATION OF SOUND INSULATION IN THE BUILDINGS

Domingo Pellicer Daviña

The rules and regulations of the acoustic requirements of buildings are found in the effective Basic Norm of Construction CA-88, "acoustic Conditions of buildings". The intention of the legislation is manifested in the first paragraph of the introduction that justifies the writing of the Royal Decree 1909/81 by which that Norm is approved: "... The necessity to protect the occupants of buildings from the physical and psychic annoyances that cause the noises, make it advisable to dictate a Norm that establishes the indispensable minimum conditions and to maintain an acceptable acoustic level... "

BIOCLIMATIC SKYSCRAPER- LEARNING FROM EAST BAWA

TAN Beng Kiang / David Robson

This document describes what is considered to be one of the first bioclimatic office buildings designed to have lighting and natural ventilation and illustrates practical lessons. The Mortgage State Bank 12 floor Building (known now as the Mahaweli Building) in Colombo, Sri Lanka, designed by the deceased Asian architect Geoffrey Bawa in 1972, incorporated many principles of design receptive to the environment long before the words bioclimatic and sustainable architecture became common. The surroundings and the context for which the project was designed, the principles of design and effective strategies of passive energy are described. It also discusses if these principles and strategies can still be applied in the design of blocks of bioclimatic offices today. The authors have interviewed members of the original design team, have compiled material from the Bawa archives, have researched current conditions and the building usage guidelines, have interviewed the users of the building and have built a 3D computer model of the building.

