Zaha Hadid Architects, Opera House in Guangzhou, 2002-2011

The 1800 seat Guangzhou Opera House designed by Zaha Hadid Architects was formally opened in February 2011. The design evolved from the concepts of a natural landscape and the fascinating interplay between architecture and nature, engaging with the principles of erosion, geology and topography. It is located at the heart of Guangzhou’s cultural centre, a lasting, state-of-the-art monument to the new millennium, overlooking the Pearl River. Its contoured profile, unique twin-boulder design and approach promenade enhances urban function, provides access to the riverside and dock areas and creates a new dialogue with the emerging town.

A brand new type of a structure, spatial folded plate triangular lattice structure, has been applied in the design of Guangzhou Opera House. This kind of a structure is unique and hasn’t been used in any of the completed buildings around the world.

The design of the interior of the Odeon and multipurpose performance hall was completed with input from Marshall Day Acoustics (MDA). They have the task of verifying acoustic performance of this new flowing geometry. Two music rehearsal rooms and one for ballet were developed as part of the project. The architectural idiom involved hard surfaces in a smooth and flowing configuration. The imposition of “acoustic panels” was not an option; the wall surfaces were created with respect for the idiom and the requirements for sufficient acoustic absorption and diffusion.

The Opera House is at the heart of Guangzhou’s cultural development. Its unique twin-boulder design enhances the city by opening it to the Pearl River, unifying the adjacent cultural buildings with the towers of International finance in Guangzhou’s Zhujiang new town.

Warsaw Spire - the skyscraper design in Warsaw won in 2011 Eurobuild Awards Competition

Warsaw, 12 December 2011 – Warsaw Spire, developed by Ghelamco, won in the category Architectural design of the year, Poland in Eurobuild Awards competition. Live voting took place during Eurobuild’s official ceremony at the Hilton Hotel in Warsaw, where 650 real estate, finance and consulting industry representatives from the CEE were present. The winning Warsaw Spire is a unique business complex developed by Ghelamco in the centre of Warsaw. The construction of the three buildings, including a 220 meters high tower and two 55 meters high side buildings, has commenced mid-2011.
Millenium Hall is the ultimate example of a commercial centre combined with an exceptional location. It covers more than 56,000 sq m of commercial space (GLA) accommodating 250 stores. The Hilton Hotel with 100 rooms and a modern conference centre are also a part of the Millenium Hall. The new facility will constitute an integral part of the urban space of Rzeszów, combining commercial, entertainment and business functions. It will also include a multi-screen cinema, music clubs, numerous restaurants and cafes as well as a square where meetings and musical events will be held for 5,000 people. A skating rink, SPA club and playground will be available for the youngest guests of the centre.

The Millenium Hall is the largest shopping center in the south-eastern Poland and a symbol of Rzeszów transformation process.

In memory of professor pp. 48-49
Andrzej SKOCZEK (1927-2011)
(ed.)

Professor Andrzej SKOCZEK, one of the most prominent and influential figures in Polish Architecture, passed away in Kraków, on 2nd November 2011, at the age of 84. Full professor Andrzej Skoczek was a dean and the leader of Contemporary Regional Architecture Department of the Faculty of Architecture at Cracow University of Technology. Andrzej Skoczek specialized in designing objects of the public use, especially sports architecture. For many years of his professional career he served, among others, as a coordinator of the works designed for the needs of the planned 2006 Olympic Games in Zakopane. Professor Andrzej Skoczek was an outstanding research scholar and a rigorous critic of modern architecture. He created a unique school of regional architecture, influenced by new architectural trends in Western European Countries.

Bartłomiej Skoczek
Beauty enchanted in the Stone pp. 50-55
Sport and Entertainment Arena by WASKO Studio

On awarded work for interesting result in the search for an original sports hall structure that integrates with the surrounding park by strongly identifying with natural forms. The Jura Krakowsko-Częstochowska (Polish Jurassic Highland) has a unique nature. From the contemplation of this space, an idea sprang up for the shape of the structure and its surroundings: a stone form created in this way, surrounded in the entry zone with water (flowing from a ‘rocky cascade’), organically connected with the greenery of Park Lotników where the design is located. The Sport and Entertainment Arena was designed in the form of a compact solid, referring to a piece of limestone. Room lighting creates a narrow, irregular glazing, retreating in relation to the wall's face, reminiscent of rocky cracks. In the lower zones, the strong solid was undercut with dark glazing panels, giving an impression of lightness, sort of floating off the ground. An important spatial element here is a sheet of water surrounding the entry zone. The water flows from the ‘rocky slot’ at the café and cascades down to the ground level, creating an atmosphere closer to nature. Reflections of the rocky shapes and greenery complete the entire composition. A circular skylight was designed over the Arena, with a plaited spiral division. This form refers to ammonite shells, which may sometimes be found in the Jurassic rocks as fossils.
Krystyna Januszkwicz

*As it was in the beginning*  pp. 56-65

Historical overview of the joint efforts of generations and civilizations in the search for devices to facilitate calculations - from the abacus to Babbage's analytical engine and UNIVAC I by von Neumann. The first computer applications in architectural design - system design seen as "the process of inventing things which display new physical order, organization, form, in response to function" (Alexander, 1964).

In Poland, Adam M. Szymski and Stefan Wrona (currently, university professors) are pioneers of using the computer in architectural design. They used the computer in the late 60's of the previous century, contributing to the propagation of a new tool in the teaching and practice of architecture. In the 70's, Szymski studied the design process in the cause-effect aspect, taking into account the knowledge of psychology and sociology regarding creative activities and accompanying habits. Szymski's invention resulted in the development of the Europe's first program to plot perspective views called WIDOK (THE VIEW), which still remains the only program of that type which can be applied using program calculators. Although there has been a development in technology, Wrona and Szymski are still contributing to the expanding of knowledge and skills in using computers in architectural design, and their scientific and didactic contribution is incommensurable.

What will happen with computers and architecture, Archivolta will present in the next issue.

Przemysław Jaworski

*BIM technology in creating a new forms*  pp. 68-75

Asymptote Architects, Strata Tower, Abu Dhabi, UAE

2006 -under construction

Building information modeling (BIM) is the process of generating and managing building data during its life cycle. Although numerous construction industries in the world have traditionally resisted the use of BIM technology, architects H. Rashid and A. Couture managed to adopt these new tools in the development of Strata Tower in Abu Dhabi. It was the first case of applying BIM in creating a new form in architecture.

In 2006 Asymptote Architecture was asked by the main investor to develop a design proposal which would be an original, sculptural and beautiful landmark for the expanding city. Design team consisted of Arup New York for structural design and analysis, Gehry Technologies for specialist geometry and BIM modelling, Front Inc. as façade consultant and Atelier Ten for environmental studies. Several design proposals were developed, but the architect together with the main client quickly distilled a form that was both mathematically rigorous and beautiful. Floor plates resembling a propeller are gently curved and smoothly twisting as the tower rises. External skeleton envelopes the building and protects it from being overheated by middle-eastern hot climate. On the other hand, high ratio of glazing allows excellent visibility of the entire surrounding and the marina area.

Most interesting part though, is the design process, which was specially optimized and conducted with the aid of Building Information Modelling technology, coupled with parametric modeling tools. In the case of Strata Tower, virtual model was used as a three-dimensional database from the very beginning, allowing nearly real-time cost analysis, simulation of building process, or post-construction phase maintenance. These strategies are not very popular in the studios around the world yet, but the situation is changing very dynamically, as construction industry evolves.
Towards the Computation in Architecture and Urban Planning is a series of lectures presented at the Bauhaus – the University founded by Walter Gropius in 1919 which had a significant impact on teaching architecture around the world. On 1st December 2011, Polish architects Paweł Rubinowicz, Michał Piasecki and Klara Czyńska gave presentations on digital technologies in architectural and urban design. Their lectures where accompanied by Experimental Architecture exhibition, which was first presented at the Architect’s Gallery FORMA (West Pomeranian University of Technology in Szczecin) at the turn of 2010 and 2011. The exhibition featured work by architects Przemysław Jaworski, Michał Piasecki and Paweł Rubinowicz. Using algorithmic approaches for definition, optimization and manufacturing of presented forms is a unique solution in the fields of architecture and product design. Experimental Architecture was the first exhibition in Poland showing deep impact of computational tools on designer’s workflow ranging from concept stage studies of forms and spaces, to later optimization and rationalization stage.

On displaying or designing exhibitions  pp. 84-87
Krystyna Januszkiewicz reviewed

What does it mean ‘to display’ (to exhibit openly in a public view) and what does it mean ‘to design exhibition’ – these questions have been discussed here. The answer to these questions has something to do with the concepts of displaying and display designing – the role of an exhibitions designer’s work. Modern displaying might be accurately characterized as an integrative process, bringing together architecture, interior design, environmental graphic design, print graphics, electronics and digital media, lighting, audio, mechanical interactivities and other design disciplines in varying degrees. What is Exhibition Design? is the ultimate guide to the numerous aspects of this rapidly emerging discipline, from retail design to museums and trade shows - every field that applies graphic information to place and object. This book illustrates the thread of history spanning from the cabinets of curiosities popular in the Renaissance, through church reliquaries, worlds fairs, and department stores. The journey brings the reader all the way to our present-day knockdown displays and provides a tour of the process behind their creation along with striking images of the results. Jan Lorenc, a Polish-born designer, coauthored with designers Lee Skolnick and Craig Berger and the book was published by Rotovision, UK. It is currently in its third English edition and has been printed in Chinese, Korean, Polish and Russian. Currently, this book is a unique professional position on the Polish book market.

Kronverk Cinema in Moscow  pp. 88-91
interior design by Robert Majkut (ed.)

Robert Majkut, an acknowledged Polish designer with a portfolio of international projects, has just completed his first project in Russia – for one of the leaders in cinema networks – Kronverk Cinema, creating an outstanding entertainment facility in Moscow.
The concept of a new standard model for cinema facilities developed by Robert Majkut Design was realized in Kronverk Cinema Lefortovo. The scope was to create an interior that would elevate the culture of multiplex cinema to a very high level, at the same time being coherent with Kronverk’s brand identity.
All colors and spatial geometric forms present in this project derive from the characteristic logo of Kronverk. Each space of the cinema is clearly defined, yet consistent with the general stylistic frame of this interior design – a mix of modernity and traditional Russian decorativeness. This aesthetic solution makes Kronverk Cinema Lefortovo one of the most attractive and spectacular multiplex facilities in the capital of Russia.

Avant-Garde of Tomorrow?  pp. 92-95
(ed.)

Avant-Garde of Tomorrow? an exhibition on young Polish architecture inaugurated the opening of the Centre for Architecture and Design in Łódź (Poland) on 7th October. The second edition of this exhibition took place in a vestibule of the Grand Theatre in Warsaw on 16th December. The exhibition gathered 14 of most promising Polish designers and put focus on individual design process rather than the final product.

La Biennale di Venezia  pp. 96-97
On 54th International Art Exhibition
(ed.)

The 54th Biennale, directed by Bice Curiger and held at the Giardini and Arsenale venues, as well as elsewhere around Venice, closed on 27th November 2011. The exhibition was titled ILLUMInations and set up in the Central Pavilion of Giardini and Arsenale, featuring 83 artists from all over the world. It also exhibited 89 National Participations and 37 Collateral Events. The German Pavilion with artworks by Christoph Schlingensief was awarded the Biennale’s top prize: the Golden Lion. Presented there A Church of Fear vs. the Alien Within was based on his personal experiences and the universal and existential themes of life, suffering, and death. The title of the 54th Exhibition, ILLUMInations literally draws attention to the importance of such developments in a globalised world. Visitors were particularly interested in the eagerness of many contemporary artists to establish an intense dialogue with the viewer, and to challenge the conventions through which contemporary art is perceived.

Polish book market  p. 100
Krzysztof Lenartowicz reviewed
Obraz Miasta by Kevin Lynch
translated into polish language by Tomasz Jelenski,
edited by Wojciech Kosinski
published by Archivolta Publishing House Michal Stepień, Krakow 2011

The Polish book-market offers a unique book Obraz Miasta (the Image of the City) by American urban planner Kevin Andrew Lynch (1918-1984) in 1960. This seminal work was translated into polish language by Tomasz Jelenski and published by the Archivolta Publishing House Michal Stepień in 1911 - it is fifty years after the first edition of this book in the USA.
The image of the city was written by Lynch after studying in various places, including Taliesin Studio under Frank Lloyd Wright, he received a Bachelor degree in city planning from the Massachusetts Institute of Technology (MIT) where, later on, he became full professor in 1963. His main contribution was to provide empirical research on city planning, studying how individuals perceive and navigate the urban landscape. This book, published in 1960, also explores the presence of time and history in the urban environment, and therefore how these external factors affect people. The first, straightforward approach to the city, taken by every individual, is looking at it, which constitutes a 5-sense aesthetical experience through space and time. A urban system can therefore be either perceived as stable or in constant change, which is the most noticeable effect of external factors affecting any environment.

On this concern, Lynch states that, unlike Architecture, Urbanism is in constant change: today, fifty years later, this issue could be regarded and discussed with further attention, as architecture, too, is subject to external factors and different perceptions, scale, but mostly a cultural aspect, involving the fact that in the 1960s the life-cycle of a building was still not wholly taken into account, as it came up about twenty years later with sustainability issues.

Lynch focuses on four main concepts, correlated to a wise urban planning: a urban system has to be held legible, through definite sensory cues its image has to be perceived by the observer, arbitrarily selected by the community and finally manipulated by city planners. Legibility and imageability would then lead to the identification of a structure, and therefore a precise identity, which are both parameters through which it is possible to analyse an urban system and its own elements.

Lynch reckons that there might be different relations of complexity within every structure: these consist in the relations between definite elements, which are identified in:

- path
- landmark
- edge
- node
- district

Lynch’s aim is to understand the relation between environmental images and urban life, at the basis of urban design principles; he therefore brings up an analysis of three different towns, putting into practice a research method whose successfulness is assessed and tested through the results of the analysis itself. The research focused on Boston, Jersey City and Los Angeles. As explained, the method undertaken concentrated on two phases, consisting firstly in office-based interviews, where the sample citizens were also required to draw up a map in order to make a rapid description of the city. The second phase consisted in a systematic examination of the environmental image evoked by trained observers in the field.

What does the city's form actually mean to the people who live there? What can the city planner do to make the city's image more vivid and memorable to the city dweller? To answer these questions, Mr. Lynch, supported by studies of Los Angeles, Boston, and Jersey City, formulates a new criterion—imageability—and shows its potential value as a guide for the building and rebuilding of cities. The wide scope of this study leads to an original and vital method for the evaluation of city form. The architect, the planner, and certainly the city dweller will all want to read this book.