

# Beauty in architecture MEANINGS AND SYMBOLS

### Piękno w architekturze ZNACZENIA I SYMBOLE

3rd International Scientific and Technical Conference/
III Międzynarodowa Konferencja Naukowo-Techniczna

<b>Editorial office</b>	/ Redakcja:
-------------------------	-------------

dr inż. arch. Piotr Stachurski

### Cover design / Projekt okładki:

mgr inż. arch. Michał Kaczmarzyk

© Copyright by Państwowa Akademia Nauk Stosowanych w Nysie

ISBN **978-83-65881-32-8** 

OFICYNA WYDAWNICZA PANS W NYSIE 48-300 Nysa, ul. Armii Krajowej 7 tel.: 77 409 11 70

e-mail: oficyna@pans.nysa.pl www.pans.nysa.pl/oficyna

### Contens / Spis treści

FOREWORD	7
Introduction	11
Peter Schmid - Prakāś, Gabriella Pal-Schmid	12
MEANINGFUL SYMBOLS IN BEAUTIFUL ARCHITECTURE	12
(1) Historical Signs of Meanings and Symbols	13
Piotr Kmiecik	14
BEAUTY IN STRUCTURE - BASED ON THE RESULTS OF EXCAVATIONS AT THE WROCLAW TICK BASTION (mid 16th c.)	14
Rozafa Basha, Teuta Jashari-Kajtazi	15
DISABILITY IN TIME AND PLACE - CONTEMPORARY MEANING HISTORIC BUILDINGS	
Juri Czabanowski	16
HISTORY OF ARCHITECTURAL BEAUTY PRINCIPLES AND EXAMPLES BUILD ON AND SUPPORTED BY MEANINGS AND SYMPOLS	1.6
SYMBOLS	
(2) Narrative and Axiological Function of Architectural Symbolism	
Tomasz Drewniak	
THE TOWER AS A SYMBOL OF AXIS MUNDI AND AXIS PERSON DESCENT INTO THE ABYSS AND METANOIA IN CALDERON'S DRAMA "LIFE IS A DREAM"	
Fr Adam Palion	
ART AS A LANGUAGE ENRICHING HOMO OECUMENICUS IN BUILDING UNITY IN MULTIPLICITY	
Marco Lucchini	
THE METAPHOR AS AN INVENTIVE TOOL IN ARCHITECTURAL	20
DESIGNDESIGN	20
Andrzej Hajewski	21
SYMBOLISM OF GEOMETRIC FORMS IN EUROPEAN CONTEMPORARY ARCHITECTURE	
CONTENII OKAKT AKCIITECTUKE	∠ 1

(3) Symbols and Meanings of Sacred Space	22
Fr Michał Dragan OSB	23
NOURISH THE BODY AND MIND - THE SYMBOLISM OF THE C MONASTERY REFECTORY	
Michał M. Petka	24
HOW TO BUILD A CHURCH? INFLUENCE OF THE RITUAL ON TARCHITECTURAL SPACE	
Grażyna Lasek	25
SIGNS AND SYMBOLS ENCODED IN "WALENCINEK" AN EXPRESSION OF THE UNIQUENESS AND PHENOMENAL BEAUTHE SANCTUARY OF ST VALENTINE IN BIERUŃ	
Katarzyna Woszczenko, Adam Musiuk	26
DEFINING THE BEAUTY OF THE ARCHITECTURE OF WOODE ORTHODOX CHURCHES IN PODLASIE THROUGH THE SYMBOOF GREEN	DLISM
Aleksandra Repelewicz	27
STYLISTICS AND SYMBOLISM OF CONTEMPORARY SACRAL BUILDINGS OF THE ARCHDIOCESE OF CZĘSTOCHOWA	
Piotr Stachurski	28
EARLY CHRISTIAN BASILICA - ORIGINS, ATTEMPT TO DEFINANCHITECTURAL MODEL	
Henryk Benisz	29
ARCHITECTURAL ANTROPOTHEODICY. THE GOTHIC CATHE AS A SPECTACULAR SYMBOL OF CREATIVE POWER AND TH POSSIBLE CHRISTIAN TEMPLE	E BEST
Ewa Matras	30
ELEMENTS OF ARCHITECTURE OF MEDIEVAL MONASTERY	
GARDENS AND THEIR MEANING AND SYMBOLISM	30
Bogusław Szuba	31

THE UNITY OF THE SYMBOL, MEANINGS, FORM AND FUNCTION OF A CATHOLIC TEMPLE ON THE EXAMPLE OF THE CHURCH OF PETE	
AND PAUL IN NYSA	31
(4) Between Sacrum and Profanum	32
Edward Hałajko	33
HOUSE OF THE MUNICIPAL SCALES IN NYSA	33
(5) Semiotics of urban space	34
Oleksandr Buriak	35
IN THE ASPECT OF BEAUTY, THE ARCHITECTURAL MARKET HAS AT LEAST NOT A SYMBOLIC MEANING	35
Piotr Obracaj	36
MULTIFUNCTIONAL PUBLIC FACILITY: LEVELS OF MULTIPLE U FORMS	
Anna Stefańska, Agnieszka Chudzińska	37
BEAUTIFUL URBAN SPACES AS A POSITIVE CATALYST OF CITIE DEVELOPMENT IN POLAND	
Malwina Tubielewicz - Michalczuk	38
SYMBOLS IN THE URBAN SPACE OF CZĘSTOCHOWA AS A MESSAGE OF TRADITION, VALUES AND ART	38
Nina Sołkiewicz- Kos	39
CITY SQUARE - THE EVOLUTION OF PUBLIC SPACES ON THE EXAMPLE OF THE CITY OF CZĘSTOCHOWA	
Justyna Kleszcz	40
THE BEAUTY OF NEW URBAN FUNCTIONS - CREATING AESTHET VALUE OR USING EXISTING ELEMENTS	
Jakub Tomiczek	41
CONTEMPORARY TRENDS IN THE DEVELOPMENT OF SMALL SETTLEMENT UNITS ON THE EXAMPLE OF THE CITY OF NYSA	41
Szymon Łoziński	42
CITY-SCULPTURE - ARCHITECTURAL AND URBAN DEVELOPMED ON THE EXAMPLE OF THE CITY OF KASSEL	

(6) Architectural space and existential space: ideas, technology and	
implementations	13
Gordana Rovčanin Premović	4
THE IDEOLOGY AND SYMBOLISM OF SOCIALISM IN THE TOURIST ARCHITECTURE OF MONTENEGRO	
Ivana Miškeljin, Miljan Janušević	15
THE IDEA OF DEMATERIALIZATION IN ARCHITECTURE: TWO SPECIFIC EXPERIMENTAL APPROACHES	15
Wiesław Rokicki, Anna Stefańska	6
UNCONVENTIONAL FORMS OF ARCHITECTURE VERSUS THE LOGIO OF LOAD-BEARING STRUCTURES	
Anna Telatycka4	17
AN ATTEMPT TO INTERPRET THE MEANINGS OF A CHURCH ROSE (ROSETTE) MAPPED WITH THE HELP OF CYMATICS4	ŀ7
Agnieszka Chudzińska, Anita Citarelli	8
AESTHETICS, ERGONOMICS, PARAMETERIZATION - CONNECTION OVER THE YEARS4	
Hanna Michalak, Jerzy Suchanek4	9
TRANSPARENCY AND PENETRATION IN MODULAR	
ARCHITECTURAL COMPOSITIONS4	9
Mieczysław K. Leniartek5	0
LEVELLING THE "DIALECT OF ARCHITECTURAL PATTERNS" ON THE EXAMPLE OF THE BUILT ENVIRONMENT OF THE SUDETES5	50
Ulyana Ivanochko, Svitlana Topylko5	;1
HARMONIZING THE RESIDENTIAL ENVIRONMENT: BEAUTY AND UTILITY IN RESIDENTIAL ARCHITECTURE5	51
Etleva Bushati5	52
MEANING AND SYMBOLISM OF INDUSTRIAL ARCHITECTURE IN ALBANIA	52

#### **FOREWORD**

#### Subject:

The conference themes are related to the multi-layered analysis of architectural and existential space in terms of authentic as well as imagined urban structures as well as public and neighbourly spaces, which are linked to the ideological message, shaped objects, urban complexes referring to symbolic content and signs encoded in functional and spatial structures, detail, equipment or decor of people-shaped environment.

### **Objective:**

The conference aims to show the timeless values of the symbolic and meaningful layer of architecture and urban planning as well as the internal, sometimes hidden, beauty that affects the human being who is present in its space. The symbolic structure organises the architectural space, setting its basic references in the ontological, axiological, cultural, social, personal and spiritual aspects. It also situates man in the mutual interaction of axis mundi and axis personae, enabling – through aesthetic values (e.g., beauty, sublime, monumentality, intimacy, character, ugliness, etc.) – their integration and disintegration, the harmonisation of the human life environment as well as its decomposition, orientation and familiarity with the world and, at the same time, confusion and alienation (homelessness).

The applicative goal of the interdisciplinary approach to the issues of architectural symbolism is to develop good practices in shaping the spatial order, balancing the aspects of human life, revealed in the figures of homo technologicus (homo faber), homo sociologicus, homo ecologicus, homo ethicus, homo religiosus.

#### Idea:

According to the Greek primary meaning of the word, which significantly shaped European architecture, art and perception (U. Eco), "beautiful" means ordered, fit for something, noble, good and true. Going beyond Greek and European cultures, the universal recognition of beauty expresses the unity of the three fundamental dimensions of human existence: the ontological, ethical and aesthetic orders, which are the primary experience of the world. As relevance, appropriateness – kalon and

prepon – it refers to the truth, goodness and divinity (H. U. von Balthasar), which are the conditions for the demonstration of humanity in its proper form. That is why the opposite of beauty – ugliness – is related to disorder, lack of measure, evil and unattractiveness.

Human striving for beauty points to desire, or more precisely to hope, even if their realisation is eschatological and is moved to a "different world" – life in order, measure. They aim to find the spatial boundary (centring, direction, form), which becomes present in the architectural space, within which man exists in harmony with his essence.

According to the theology of the Christian East, the true man is a beautiful individual, depicting and embodying divine beauty: the beauty of divine love. The temporal human condition, however, is marked by the presence of ugliness and evil, distorted (ontically impoverished), without harmony and torn apart. That is why man needs to constantly and therapeutically stay in what is beautiful, its mediation integrating with what is good. He needs art that "restores his sight", sensitivity to the presence of beauty in the world, in other people and in himself. The world deprived of beauty, going beyond its utilitarian and hedonistic meaning, is a world without goodness, truth and love; a world that is inhuman in its essence. This aspect of kenosis (destruction) of beauty, associated with the disintegration of form and content, is evident in contemporary art.

As noted by Paul Evdokimov, "Every artist has the terrible freedom to transform the world according to their own image, to project a desolate landscape into it, which is an expression of the darkness of their own soul, to impose on others a vision of a giant latrine that is swarming with undefined monsters". This loss, "limitation of the soul", "meaningless" existence is a correlate of spatial and axiological loss of the contemporary man who desires beauty and, at the same time, facing the call to make beauty present – is unable to articulate it as he has lost access to the proper content of beauty and its corresponding forms.

Openness to beauty means openness to the world and other people, the affirmation of ugliness and imperfections. Man's proper response to beauty is expressed in his belonging to the world, the correlation between the spatial and spiritual centres. Beauty, as implied by the name of the philosophical discipline exploring its essence, is "aesthetic" and thus spatial, making itself present in relation to the corporeality of man, his existence in a certain world as a spatial and significative whole.

Man, let us refer to phenomenological analyses, does not exist in natural or geometric space but his world is each time opened and constituted by architectural space (Ch. Norberg-Schulz), through connection with objects whose structural order is organised by architecture, creating the whole that makes sense, offering him domestication – being with others.

This indicates the relationship among beauty, architecture and ethos as three inseparably intertwined components. Since the dawn of human history, architecture has been an essential link in the socio-cultural continuum; it is a testimony to the surrounding reality. The meanings and symbols it contains are a record of important events, the transmission of important information, and a reflection of the prevailing views. The content message expressed through the urban layout, the language of forms and details, a specifically shaped structure, works of art that are part of architectural objects are extremely rich ways of influencing people, shaping perception, experience and understanding. Therefore, the analysis of beauty in architecture is of a fundamental nature, conditioning studies on the essence of beauty, the essence of architecture as well as the essence of humanity. It is a fundamental ontology of beauty (in analogy to Kant's grounding of metaphysica generalis in metaphysica specialis and its Heideggerian interpretation), which is translatable both into application issues and the practice of everyday life.

The detailed topics of the conference will be related to the conditions of shaping, experiencing as well as understanding symbols and meanings functioning in the architectural and urban, artistic, sociological and philosophical perspectives. The interdisciplinary nature of the conference will foster cooperation between scientists and practitioners, aiming at getting to know and improving the shaping of the space of the human life environment. After a positive review, the papers will be published in the journal "Ignatianum".

Tomasz Drewniak Bogusław Szuba

### **BOOK OF ABSTRACTS**

### Introduction

Peter Schmid - Prakāś, Gabriella Pal-Schmid

### MEANINGFUL SYMBOLS IN BEAUTIFUL ARCHITECTURE

The Call for Papers contains already a kind of abstract for an interesting, fundamental, promising paper, what we try to continue with our work. p

In order to start, we discuss the meaning of architecture generally and holistically on physical, psychological, and spiritual level. This will happen with illustrating definitions.

This will be followed by a possibly free interpretation of the meaning of beauty in architecture, illustrated with the ancient, Classical, the Gothic, and the Baroque approach, what in a way became itself a symbol. We relate the styles from the past with a Nowadays way of designing.

Answering the conference topic - symbols of beauty in or of architecture. After trying to define 'symbol', and an overview of symbols in many fold history, there will be a search for the symbols (of beauty) in architecture, illustrated with three examples, namely the 'Ekistics' of C.A. Doxiades, the Maharishi Sthapatya Veda, and the galactic civilization designs, done by the author, concluding in some nowadays ideas.

There might exist a nearly international and global, quite durable symbol for our Home and Architecture.

The meaning of beauty in architecture will also be described on different levels.

The special Conference Request is a quite difficult one. Answering, what evokes the feelings of beauty, we tried to find the different reasons for it. They can be quite different, depending on the complex constitution of the observer.

Similarly we only can give a guess about what premises and determinate the occurrence of these phenomena.

In Addition we bring some more general consultations about beauty in architecture with the question concerning the literal limits of beauty - in an epilog. We conclude, that only Meanings and Symbols in, or given by Architecture in artistic and philosophical messages make building to real Architecture - 'Architecture with a capital A'.

Prof. Peter Schmid - Prakāś, Gabriella Pal-Schmid

- Eindhoven University of Technology (Netherlands)
- RED ResearchEducationDesign in ScienceArtTechnology for PeacefulSustainableTechnology, Hungary

(1) Historical Signs of Meanings and Symbols

#### Piotr Kmiecik

# BEAUTY IN STRUCTURE BASED ON THE RESULTS OF EXCAVATIONS AT THE WROCLAW TICK BASTION (mid 16th c.)

Military objects are rarely considered in the context of beauty. Castles may be an exception, but it must be remembered that in addition to their strictly defensive function, they also had a certain representational significance that justifies such an analysis. Medieval towers, gates and city walls have a certain picturesqueness that has been appreciated since the 18th century. It is therefore possible to speak of their beauty, if only at the urban scale. In addition, the representational (and therefore aesthetically significant) value of city gates also has its deep justification. The situation is completely different in the case of modern buildings. With the development of the art of war, there was less and less space for aesthetics in these structures, which were subordinated to ever more precise rules arising strictly from their defensive tasks.

Between 2015 and 2019, excavations were carried out under the author's direction on the site of the former Babinski Hospital in Wroclaw. One of their aims was to discover relics of the 16th-century Tenaille /Tick, Tongs, Pincer/ Bastion (Polish: *Bastion Kleszczowy*) - one of the oldest buildings of this type in Europe. As a result of the works carried out, the remains of the southern shoulder, front and spur of the bastion, as well as numerous fragments of its northern part were uncovered. At the same time, it turned out that the construction of the object was much more complicated than it could have been expected from the results of the preliminary search. The way each element was elaborated, connected and juxtaposed is a direct result of the military (and therefore extremely utilitarian) character of the object, and yet it creates a structure that delights.

Analysing the uncovered relics, it is hard to resist the impression that the principles introduced over the centuries (resulting, after all, not only from changes in the art of siege warfare, but also from an increasing understanding of the principles of physics and mechanics) brought military buildings ever closer to perfection, understood as the perfect use of their capabilities and knowledge. Thus, in the author's understanding, the development of military architecture turned a full circle, achieving beauty through precision of form.

Piotr Kmiecik - Eng. Arch. PhD, Angelus Silesius University of Applied Sciences in Walbrzych

Rozafa Basha, Teuta Jashari-Kajtazi

### DISABILITY IN TIME AND PLACE CONTEMPORARY MEANINGS IN HISTORIC BUILDINGS

Architectural barriers are one of the principal restrictive features of the built environment limiting the movement and quality of life of people with disability (PWD). According to recent figures from World Health Organization, PWD comprises around 16% of the global population. This figure expands significantly because the experience of disability includes the elderly, pregnant women, and toddlers, and it also extends to immediate family and friends interacting daily with PWD. Consequently, this demonstrates that disability is not a condition of a restricted population category but an extension of human experience.

When 2005 the Faro Convention on the Value of Cultural Heritage for the Society was ratified, signatories pledged to bring heritage closer to all people and to undertake measures to ensure universal access to it. In this fashion, architectural heritage, an important part of collective identity and a common good resulting from the interaction between people and place through time, could become accessible to all.

Scrupulous interpretations of encoded collective memory and embodied meanings in historical structures are methodical approaches preceding every heritage conservation intervention. The friction between the semantics of values and accessibility regulations is particularly conspicuous in architectural heritage, making adapting historical structures for PWD a challenging conflict-resolution exercise. Can new meanings be produced from the complex negotiation between heritage values and civil rights?

Based on this premise, the present research examines the recent adaptation of a historic building formerly known as the city library 'Hivzi Sylejmani' in Pristina. Adaptation works introduced a new community use and equipped the structure with necessary accessibility elements. Through a historical review of past functions, photographic analysis, and survey of plans, the study attempts to establish a ground on which heritage and community values are re-examined and confronted, whereas interpretations of novel meanings are sought.

Rozafa Basha - Eng. Arch. Ass. Prof, University of Pristina (Kosovo) Teuta Jashari-Kajtazi - Eng. Arch. Assoc. Prof, University of Pristina (Kosovo) Juri Czabanowski

### HISTORY OF ARCHITECTURAL BEAUTY PRINCIPLES AND EXAMPLES BUILD ON AND SUPPORTED BY MEANINGS AND SYMBOLS

The ppp-lectures 'History of Architectural Beauty Principles and Examples build on and supported by Meanings and Symbols' will illustrate how symbols are added as decoration to embellish an architectural structures and how architecture and structures through the centuries, even millennia, are used to express certain meanings of culture, ideas and ideologies and (re)use of building-materials.

# (2) Narrative and Axiological Function of Architectural Symbolism

#### Tomasz Drewniak

### THE TOWER AS A SYMBOL OF AXIS MUNDI AND AXIS PERSONAE. DESCENT INTO THE ABYSS AND METANOIA IN CALDERON'S DRAMA "LIFE IS A DREAM"

The paper, in reference to the concept of thing (M. Heidegger, Ch. Norberg-Schulz), presents the symbolism of the architectural and existential space as a record of the path of human spiritual transformation. The spatial and axiological order in European culture is based on a vertical reference, constituting a relation to the center (axis mundi). It gives meaning and unity to beings, harmonizes the relationship between the earth and the sky, i.e. what is below man (nature) and what is above him (God).

The tower is the architectural form in which the unity of man with the paternal figure of the sacrum is manifested. The tower introduces a spatial-symbolic normative reference into the universe. Three modules can be distinguished in it: its extreme parts show the relationship with the earth (body) and heaven (moral order), between them there is a spatial and functional layer in which human life takes place. This three-part system and the way "down" and "up" taking place in it corresponds to the levels of the human spirit: what is pre-human (non-human), what is human and what is superhuman (G. Bachelard). Hidden and unobjectified emotions, desires, drives and needs (foundations, basement, dungeon) are situated at the base of personal life.

From them grow human activities directed towards the world (the sphere of daily activities - dwelling), which should be directed through the axiological center (axis personae, conscience) directed towards the divinity that transcends man (roof, dome). In Calderon's drama, the tower originally plays the role of a place of isolation, imprisonment and a pedagogical experiment. Emotionally, this place is filled with the father's fear of the son and the son's hatred of the father. It also becomes a place of radical transformation of the main character.

Analyzing, on the example of Zygmunt, the regressive-progressive dynamics of human spirituality, which is realized by transcending and restraining nature, which is accompanied by e.g. objectification of faults, assimilation of errors, experience of suffering, I indicate that in this process there is a transformation of the antagonistic father-son relationship conditioned by the Christian symbolism of a just and merciful father and an obedient son.

Tomasz Drewniak - PhD Prof. of University of Applied Sciences in Nysa

#### Fr Adam Palion

### ART AS A LANGUAGE ENRICHING HOMO OECUMENICUS IN BUILDING UNITY IN MULTIPLICITY

The beauty embodied in architecture has a rich system of symbolic and meaningful language. For *homo oecumenicus*, it becomes a testing ground for the search for unity in multiplicity. A person's process of interpreting a work of art is influenced by the baggage of his or her theological views and life experiences.

Faced with the multiplicity of philosophical currents and different religions, the viewer of a work may feel perplexed, which is likely to become an impulse to search for common elements. Thanks to the diversity and knowledge homo sapiens possesses, he is able to take a broader view of the reality in which the product of human labour and thought is located. The pluralism encountered by the contemporary creator of art - understood very broadly, from literary works to paintings, music, sculpture and architecture - is capable of revealing the beauty of the created world.

Looking at the work and the multiplicity of philosophical and theological currents, man as a viewer can benefit from the thought of Fr Prof. Tadeusz Dzidek. He considers three levels of interpretation that become harmonious and show the beauty of the completed work and lead to the experience of transcendence.

The first focuses on the intention of the author, creator or artist. In it we find his or her baggage of personal feelings and experiences. The next is the information - the intention that the work itself communicates. This is because it contains words, symbols or signs that limit the space in which one can move and find this message. The third level is the intention of the viewer, conditioned by the wealth of philosophical and religious ideas he or she possesses, as well as personal life experiences.

The question can therefore be asked: is confessionality an important aspect of art? Yes, it plays an extremely important role, because it brings into the creative process many elements that are characteristic both of a particular era and of a particular theological sensitivity. Thanks to this sensitivity, it is possible to show transcendence to the fullest, which is so much needed in the world today. This is why works associated with Protestantism, Eastern Christian spirituality or those drawing on other philosophical sources use different principles.

Art, as a language for expressing the depth of one's view of the world, should enrich *homo oecumenicus*, because by looking at the work in full, one touches on the transcendent while at the same time teaching respect for the different.

Fr Adam Palion - PhD, Archdiocesan Commission for Ecumenism and Interreligious Dialogue in Katowice

#### Marco Lucchini

## THE METAPHOR AS AN INVENTIVE TOOL IN ARCHITECTURAL DESIGN

In the field of architectural design, it has been known for a long time that knowledge, both from the point of view of the designer and from that of the user, is based not only on well-founded functional relationships but on deeper and more authentic principles. The meaning and the sense of a work of architecture depend on the relationships it has with the physical and cultural context. In turn, these relationships are predominantly of a representative nature: the work of architecture has a direct and immediate meaning, usually of a functional nature and a representative one that can be understood mainly through tools for thought borrowed from philosophy or literature: one of the most relevant is the metaphor, the object of investigation of this paper.

Indeed, an architectural form "refers analogically and symbolically" to a system of cultural references concerning both the disciplinary field of architecture (for example, the building shape or the façade composition) and other fields of knowledge such as literature, music, history and so on; the cultural depth of architecture is the outcome of this interweaving. A well-known example, particularly suitable for an investigation on metaphor, concerns the analogy between architecture and narration, ranging from those who consider architecture as a text (or just a text) to those who seek narrativity in it.

The transition between these references - which according to Baudelaire can be named "correspondences" – have to take place quickly, intuitively and bidirectionally: the meanings must be easily transmissible both in the moment of planning and in that of interpretation. For this reason, the metaphor is a powerful tool for design study and elaboration: in fact, it rapidly turns ideas into images and vice versa by condensing a multiplicity of information into some figurative elements with symbolic value. The latter makes architecture understandable and able to arouse emotions.

The deepest fascination of the metaphor probably arises in its capability to skip logic, making architecture leap beyond what is only rational and deterministic to a world where flows of different thoughts can be blended. The creative and imaginative process pays a lot to the metaphor as well as other figures of speech able to provide a symbolic meaning. Anyway, it's very important to remind that metaphorical thought always follows the tracks of constructive rules, and it is just that constraints which make the metaphor a powerful design tool.

### Andrzej Hajewski

### SYMBOLISM OF GEOMETRIC FORMS IN EUROPEAN CONTEMPORARY ARCHITECTURE

The subject of the author's presentation is an attempt to define the symbolism of geometric forms in architecture and art with its assumed affirmation of three basic geometric figures and solids (triangle/tetrahedron, square/cube, circle/sphere) as compositional components of the created work, with the aim of achieving the desired harmony of the work by the potential creator.

Symbolism, limited and distinguished to three elements that interpenetrate and remain between each other:

- the Creation element represented by the triangle and its corresponding tetrahe dron, and the two creative elements taken from it and contained in it:
- the male element represented by the square and its corresponding cube;
- the female element represented by the circle and its corresponding sphere;

is to bring us closer to recognising the creative action of God in the works of man.

The author is convinced that the elements listed are of decisive importance in shaping works of architecture and art. In doing so, he points to the existence of a universally significant key to the creative workshop, not yet recognised, but probably perceived subconsciously.

Only in the configuration of the interplay of these three forms of the elements of being is it possible to obtain the quintessential aesthetic-philosophical correctness of an architectural work.

In this work, a deductive-comparative methodology has been applied. It is based on the assumption that the three basic elements which, in a far-reaching simplification, constitute the three-dimensional space we perceive, may be assigned, for the artist's use, to their corresponding geometric forms, which in the sphere of perception become symbols of "higher values" building the harmony of created objects. Harmony perceived by viewing space both in the sensory (visual) and subconscious sphere.

The research carried out on the selected works of architectural objects is dual in nature:

- analysis of geometric forms
- reflection of a philosophical nature based on the foundation of our civilisation of Christian principles.

Andrzej Hajewski - Eng. Arch. MSc, Wroclaw University of Technology

(3) Symbols and Meanings of Sacred Space

### Fr Michał Dragan OSB

### NOURISH THE BODY AND MIND THE SYMBOLISM OF THE OLD MONASTERY REFECTORY

Space of a monastery was always intended by St Benedict and other ancient monastic leaders to be a symbolic space. The rules of life and the monks' living space connected with them were imbued with theology and meanings. Both the monastic topography and the furnishings called the monastic life to follow the rhythm prescribed by the sacred texts of the rules. An example of such a space is the monastic dining room, whose traditional name: refectory, derived from the Latin word *reficere* - to renew, thrusts the user into spaces of meaning beyond the mere functionality associated with eating. In this paper, symbolic nature of the refectory will be exemplified by monastic refectories of selected historic Polish Cistercian, Pauline and Dominican monasteries.

Michał M. Petka

### HOW TO BUILD A CHURCH? INFLUENCE OF THE RITUAL ON THE ARCHITECTURAL SPACE

The presentation is intended to show how the formation of ritual in the Catholic Church influenced the construction of places of worship. Using selected examples of church buildings, both Western and Eastern rites, the symbolism and meaning of the various elements of the church will be explained. Also, their history will be outlined. The importance of beauty in liturgical space, and the different ways in which it is manifested, will be shown. The whole will centre around the answer to the question of how to combine symbolic, practical and aesthetic elements when designing a church building.

### Grażyna Lasek

## SIGNS AND SYMBOLS ENCODED IN "WALENCINEK" AN EXPRESSION OF THE UNIQUENESS AND PHENOMENAL BEAUTY OF THE SANCTUARY OF ST VALENTINE IN BIERUŃ

The wooden historic church of St. Valentine, fondly called by the Bierunians "Walencinek", is located in Upper Silesia, in the town of Bieruń, in the district of Bieruń Stary. It belongs to the parish of St Bartholomew the Apostle. We do not know the exact date when the church was founded. The first historical mention of its existence dates from 1628 and is contained in the visitation report of the last Evangelical dean of Pszczyna, Johann Hoffmann. In the church we can find relics of St. Valentine, whose authenticity is confirmed by a document from 28 February 1961. The local cult of St. Valentine flourished in the second half of the 17th century.

Reasons for the uniqueness of the sacred complex include:

- personal attitude to it expressed by many inhabitants of the town and surrounding area,
- the number of pilgrims flocking to the church asking for the grace of healing from illnesses of soul and body, and for love,
- proclaiming St. Valentine the patron saint of Bieruń (20 December 2003),
- raising the church to the dignity of the diocesan sanctuary of St Valentine (13 February 2015).

It is now the only shrine to St Valentine in Poland.

The aim of the work will be to investigate the history of St. Valentine's Church in Bierun and to identify the layers of meaning and symbolism contained, i.a. in culture and art, which significantly contribute to the uniqueness and extraordinary beauty of the St. Valentine's Sanctuary in Bieruń.

In order to find answers the questions posed above, the following research method was adopted:

- analysis of the terms: sanctuary, beauty, symbol, sign;
- analysis of the history of the town and St. Valentine's Church in Bierun;
- cultural analyses;
- analysis of selected literature, documents, drawings and maps concerning Bierun and the church.

As a result, an attempt will be made to identify the symbols and signs co-determining the uniqueness and beauty of the Sanctuary of St. Valentine in Bieruń. Due to the author's assumed objectives, the considerations undertaken will constitute a novelty in the approach to research in the undertaken subject matter.

Grażyna Lasek - Eng. Arch. PhD, University of Applied Sciences in Nysa

Katarzyna Woszczenko, Adam Musiuk

## DEFINING THE BEAUTY OF THE ARCHITECTURE OF WOODEN ORTHODOX CHURCHES IN PODLASIE THROUGH THE SYMBOLISM OF GREEN

Symbolism in the architecture of Orthodox churches has a very wide range, from the shape of the plan, the volume, the number of domes, the division of the interior, to the applied colours of the interior and the elevations. Because of the native character of Podlasie for the authors, this region was chosen for the study.

For many years, this area has been associated with wooden architecture due to the easy availability of the building material. Podlasie is also known for its multiculturalism. The area has the highest Orthodox population concentration. These attributes have defined and narrowed the focus of this paper.

The symbolism of the architecture of the wooden Orthodox churches of Podlasie can be seen, among other things, in the variety of colours of their elevations. We can find green, blue, brown and other colours of churches. The research shows that this is one of the attributes of the region under study. Each colour represents something different, often the villages have a patron saint, these can be: Holy Spirit, Our Lady or martyrs. This symbolism is also evident in the interiors, where the walls are embellished with frescoes and icons, and the church pulpits are decorated with table-cloths in different colours depending on the holidays celebrated.

Temples associated with the colour green are particularly interesting examples. This colour is usually associated with the Holy Spirit, sent by God for the consolation of people after Christ's return to His Heavenly Home. In theology, we can find references of the green colour to the symbolism of eternal life. The colour is also associated with life-giving nature, of which green is an outward attribute. In our climate, nature dies down every year for a period of unfavourable winter conditions, to be renewed in the spring and to go through its entire life cycle once again until the next winter, so the colour green also symbolises renewal.

Such rich symbolism of the architecture of the wooden Orthodox churches of Podlasie leads the viewer to deep reflection on its beauty. Green undoubtedly evokes a feeling of peace and familiarity with nature, the great need for which is evident in the modern world.

Katarzyna Woszczenko - Eng. Arch. MSc, Bialystok University of Technology Adam Musiuk - Eng. PhD, Bialystok University of Technology

### Aleksandra Repelewicz

# STYLISTICS AND SYMBOLISM OF CONTEMPORARY SACRAL BUILDINGS OF THE ARCHDIOCESE OF CZĘSTOCHOWA

Catholic churches built in the Archdiocese of Częstochowa from 1945 to the present are characterized by a large stylistic diversity. The aim of the paper is to present the development of the forms and style of sacral buildings in the indicated period. The was created as a result of the author's own research carried out in the area of the Archdiocese of Częstochowa. The research consisted in inspecting the building, making photographic documentation and making an inventory of the building. A query was also carried out in the parish archives and the archives of the Metropolitan Curia. Religious buildings erected immediately after World War II were implemented in two different aesthetic conventions.

Conservative churches were erected, referring to the style of previous epochs, built in a style called syncretism, and modernist buildings. In the 1960s and 1970s, modernism remained the dominant stylistic trend in sacral architecture. The 1980s was the time when postmodernist church designs were already emerging and modernism was beginning to have a conservative character. However, many modernist buildings were still being built in the Archdiocese of Częstochowa at that time. At the same time, starting from the late 1980s, the first postmodernist churches appeared in the archdiocese.

Religious buildings erected after 1989, when church construction was experiencing a period of great prosperity after years of numerous obstacles and restrictions characteristic of the times of the People's Republic of Poland, are characterized by the greatest variety: from neo-historical to neo-modernist buildings, as well as churches erected in the regional style. Examples of church buildings erected from 1945 to the present day are presented in a chronological manner, focusing on their style, geometry and symbolism.

#### Piotr Stachurski

## EARLY CHRISTIAN BASILICA - ORIGINS, ATTEMPT TO DEFINE AN ARCHITECTURAL MODEL

The architectural symbolism of late antiquity is an area of elaborated architectural patterns, clearly understood, legible, to which the architects of early Christian churches may have consciously referred. This is primarily about the architectural archetype of the temple as sacred mountain (the biblical holy mountain of Bethel /Hebrew: house of God/, Sumerian zikkurat) and the temple as sacred interior (first of all Jerusalem's Temple of Solomon but also the clasical Egiptian temple from the time of New Kingdom). Key to understanding the architectural symbolism of the early Christian church is also the archetype of the gate, as the place of passage between areas of different realities, and the place of Epiphany - Holy Appiriance - of ancient deity or a deified ancient ruler.

Architectural idea must be based on geometry. (the concept of architecture as the applied geometry, noticeable especially in the Middle Ages). From this reason architectural symbolism of Early Christian church must have been based on geometrical symbolism of circle (invisible world, eternity, heavenly reality) and square (visible world, earthly reality).

The Roman basilica is not only an adapted functional layout. In a Roman city, the basilica is an indoor gathering place, and may be an indoor place of assembly. Greek word "ἐκκλησία" means an assembly of the citizens of a city. The Christian Church is the Assembly of the Lord - gr.: ἐκκλησία κυριακή - etymological source of Latin: Ecclesia / ecclesia, German: Kirche and English: Church (community of believers) / church (building). From this point of view the Roman basilica can also be regarded as one of basic architectural archetypes for the symbolism of the Early Christian church.

The most representative examples of the earliest Christian churches were rebuilt many times. To create a theoretical architectural model (or a few basic models), the most probable as possible, of the most ancient Early Christian basilica (313-395) it is necessary to rely on later later realizations, iconography (in principle only from later times), analysis of literary sources and reconstructions made by widely recognized experts.

### Henryk Benisz

## ARCHITECTURAL ANTROPOTHEODICY. THE GOTHIC CATHEDRAL AS A SPECTACULAR SYMBOL OF CREATIVE POWER AND THE BEST POSSIBLE CHRISTIAN TEMPLE

According to archetypal images, temples are "pictures of the world" (Eliade), and sacred objects are "reservoirs of power" (Leeuw). Each temple is an object connecting two worlds: human and divine, and a kind of binder is the power flowing between these worlds. From the beginning of his existence, man wanted to use the divine powers that could ensure his prosperity, so he tried to ask for them or get them in some other way. Mesopotamian ziggurats were probably crowned with astronomical observatories that were used to spy on the gods and discover ways to take their power. The Bible also mentions the Tower of Babel, which was to unite people and make them able to match God in independent creative endeavors. A similar motif of the tower appears in Greek literature and philosophy, where it was mentioned of ancient architects representing a strong and free-thinking generation of people making stairs to heaven to pester the gods (Homer, Plato). It seems that man consciously uses his free will and undertakes projects aimed at becoming a new Demiurge or the Great Architect.

Original Christianity was founded on the non-power of the Savior, and not on hitherto known powers. The early Christians did not build temples or towers going up to heaven, but worshiped the Father in spirit and truth. Over time, when the community of believers grew and took on institutional features, for religious purposes began to be adapted secular buildings, such as megarons and basilicas designed by Mycenaean-Greek architects. Then in ,,the age of the cathedrals' (Duby) there was a return to cultural tradition. The builders started to erect higher and higher Gothic cathedrals, which ideologically referred to ancient temple towers. Unlike Romanesque buildings, their predecessors, Gothic temples are open to the universe and filled with light. This evident propagation of light may be related to the doctrine of illuminism (St. Augustine), but it may also anticipate the approaching time of enlightenment, when man with the power of his own mind sought to fulfill a luminous vision of the future. In any case, the new art of building benefited from the new art of counting. Maths reveals God's creative plan and illuminates our lives (Tammet). She is a complement to theology, hence the builders of cathedrals felt equal to priests and, like them, strictly hermeticized their profession.

Although the trend for building cathedrals has passed with the medieval theocentric views, and modern architects, wanting to prove themselves, design secular skyscrapers, the agon between God's power and human power is still valid. Perhaps man has discovered in himself the genes of the overman and therefore consistently turns the will of God into his own will or universally understood, godless will to power (Nietzsche). This does not change the fact that just as God created the best of all possible worlds (Leibniz), man created the Gothic cathedral as the best possible Christian temple.

Henryk Benisz - Prof. DSc, University of Opole

#### **Ewa Matras**

## ELEMENTS OF ARCHITECTURE OF MEDIEVAL MONASTERY GARDENS AND THEIR MEANING AND SYMBOLISM

Medieval monastery gardens were an integral part of the monastery complexes, their structure was consistent with the principles of harmony, proportion and philosophy of Aristotle, while the architecture and arrangement of vegetation symbolically referred to many religious, cultural and philosophical aspects. The monastery gardens served many functions for both the clergy and the entire community, including

- 1. utility/practical functions satisfying the needs of the monastery, growing vegetables, using plants in medicine;
- 2. place of prayer and contemplation a function of contemplation of the beauty of God's works and prayer (alleys, gazebos, wells, and fountains favoured affirmation and meditation);
- 3. centre of arts and sciences a place where monks often conducted research and experiments related to botany, astronomy, medicine and geometry;
- 4. place for meetings and social interaction exchanging views and building interpersonal relationships.
- 5. place of recreation and rest, full of beautiful vegetation, colours, and smells, created the opportunity to commune with nature and escape the problems of everyday life.

Medieval monastery gardens, depending on the needs and location, had different geometric arrangements, for example in the shape of a circle, square or triangle. Each of them had a symbolic meaning and fulfilled specific functions. They referred to religious, cultural and philosophical aspects, including the four Gospels, the Holy Trinity, the four elements or directions of the world.

The structure of the garden, which was formed by appropriately selected elements such as cloisters, meditation squares, fountains, walls, and lanes, labyrinths and vegetation, its colors and smells symbolized order, harmony and spiritual path.

Symbolic references in medieval gardens referred primarily to the paradise garden of Eden, which could only be accessed through meditation and spiritual purification; man's cloisters and labyrinths symbolised the spiritual path, and the water mirrors referred to the Christian concept of the reflexion of God in man and time - o The monastery castles were designed in accordance with the principles of geometry and symmetry, which was to symbolise order and harmony in time. Symbols such as crosses and fountains reminded us of the transience of life, and at the same time appealed to the hope for eternal life. Vegetation in the gardens symbolized changes in nature and cyclicality of life.

The symbolism of the medieval monastery gardens was very complex and referred to many aspects of spiritual life. All elements constituting the whole garden complex, such as plants, trees, fountains, fences and garden architecture had a symbolic meaning and their function was to help achieve spiritual perfection. The monastery gardens were allegorical places, representing the spiritual path leading from earthly life to eternity.

### Bogusław Szuba

## THE UNITY OF THE SYMBOL, MEANINGS, FORM AND FUNCTION OF A CATHOLIC TEMPLE ON THE EXAMPLE OF THE CHURCH OF PETER AND PAUL IN NYSA

St. John Damascene writes: "When I am tired of thoughts and prevented from enjoying the pleasure of reading, I go to the temple, my eyes are fixed to its architectural space and incline my souls to the glory of God. I meditate on the martyr (...) His flame ignites me (...) I fall to the ground to adore God through the martyr."

In the past, as well as today, although unfortunately much less frequently, the symbolism of the content of works of art contained in the sacred space became helpful in contact with the Creator, His Majesty and Absolute Beauty. This method became an inspiration and to some extent the basis of the author's reflections on the sacred art of architecture conducive to finding God.

The ultimate thing for man is to make a choice that takes place within him, between truth and falsehood, good and evil, and especially good and apparent good. We live in a time where the boundaries between these values are still being blurred, falsified, and drowned out. For this reason that giving ideological and semantic values to sacred space is important for modern man.

Interpretations of the space of sacrum may differ in many respects, depending on the accepted conventions of its expression, authorial inspirations, as well as the objective conditions of the place where the works are erected. However, the depth of impact of the sacred space is independent of the place of time and space. The key to the creation of these experiences are and will be symbols based on the content of our faith, transferred tradition and human beliefs. The impact of the content of symbols seems to increase if their use is combined with the use of open architectural structures. Hidden in the space of the interior of the temple, the sacred, breaking the barriers of steel, concrete, radiates outside, becomes ubiquitous.

The work has a dual character, intertwining theological and aesthetic interpretations. The reflections were based on the example of the Baroque church of St. Peter and Paul in Nysa.

From the point of view of man striving for an encounter with God, the church is a special kind of building. The function, form, symbolism, and meanings formed in it should constitute a well-thought-out semantic construction.

In the encyclical Fides et Ratio, John Paul II wrote "between reason and faith, there can be no essential conflict. Faith recognises the autonomy of natural reason. [...] Faith and science belong to different orders of knowledge." It would be good if the symbolism of sacred spaces, which was referred to in the beliefs and lifestyle of believers, penetrated the contemporary world, pointed the way to the goal we are all following.

Bogusław Szuba - Eng. Arch. DSc Prof of University of Applied Sciences in Nysa

### (4) Between Sacrum and Profanum

### Edward Hałajko

### HOUSE OF THE MUNICIPAL SCALES IN NYSA

Since the location of Nysa at the beginning of the 13th century, the urban layout of the city centre has been preserved until today. However, after the destruction caused by the events of 1945, few historical buildings remain. The mid-market block, which was used for municipal, commercial and public buildings, has been the most transformed. What stands out today is the restored 17th-century Municipal Scales House, which exemplifies the combination of municipal and ideological functions and is an architectural dominant in the city space.

Situated almost in the very centre, the Renaissance building and the former municipal scales instrument in its arcade, from which the building took its name, played an important role as the seat of the custom and treasury institution for several hundred years, bringing income to the city and the ruler. The grandeur and care of the workmanship, indicate that considerable resources were invested in the construction in 1604. The gable elevation was particularly distinctive and, with its appearance, aesthetics and programme, could compete with the elevations of churches of the period. The building was a manifestation of the grandeur of the town, the wealth of its inhabitants and the importance of the local government.

The image of the Renaissance townhouse with its rich architectural decoration has become one of the symbols of the city. Its importance is evidenced by the fact that it has been rebuilt at least twice in its history, after very serious damage (Thirty Years' War 1618-1648, Napoleonic Campaign 1807; the capture of the city by the Red Army in 1945). Over the years, other factors including atmospheric conditions have also negatively affected its appearance. Despite this, it has been restored and rebuilt several times. Today, it is also a testimony to the great economic and political importance of Nysa in the history of Silesia from the 13th to the 18th century, i.e. during the reign of the Bishops of Wroclaw - the Dukes of Nysa.

## (5) Semiotics of urban space

#### Oleksandr Buriak

## IN THE ASPECT OF BEAUTY, THE ARCHITECTURAL MARKET HAS AT LEAST NOT A SYMBOLIC MEANING

In order for "beauty" to be reproduced in the world of architecture as the main value of an architectural work, the existence and effective functioning of the architectural art market is necessary. The importance of that, implemented in the countries of market democracies "by default", was noticed in post-communist countries during the transition from a centralist planned to a market model of the social system.

This "transitional period" that Eastern European architecture experienced from the mid-1980s was a slow and inconsistent development of market regulation processes against the backdrop of numerous remnants of a centralized state design system, institutional relics of non-market, administrative and command management. The main changes took place on the development market, while the shaping of the architectural art -market met with the lack of such institutions as

- 1) marketing of architectural art;
- 2) universal "Museum of Architecture";
- 3) current architectural studies;
- 4) architectural criticism.

Architectural studies in the "normal" market system serve as the main means of informing and educating the architectural public, thus contributing to a qualified order for the artistic merits of the architecture. In the professional environment, architectural criticism is to shape and update the scale of evaluating the products of the sphere in terms of their artistic quality.

Regulatory mechanisms, which were created as part of the communist social model and still exist in a number of countries, appeared insufficient or even dysfunctional in the space of the developer's market, and even more in the architectural art-market.

As counter-examples of the effective organization of the aesthetic control service in market conditions, the system of Masters that developed in the heroic Modern Movement, the system of "stars" that replaced it during the International Style crisis, competitions and awards such as the Pritzker Prize, activities of Dutch "Beauty Committees", etc.

Oleksandr Buriak Eng. Arch. DSc, Prof. of University of Lodz,
Prof. of State Biotechnology University in Kharkiv (Ukraine)

### Piotr Obracaj

## MULTIFUNCTIONAL PUBLIC FACILITY: LEVELS OF MULTIPLE USE FORMS

The 16th century marked the beginning of changes in European theatre. A continuation of the Teatro Olimpico built in Vicenza was the 17th century theatre for the Farnese family in the Palazzo della Pilotta in Parma. It initiated a form of Italian Baroque theatre that was adopted throughout Europe, and later worldwide. It was interpreted spatially in different ways, although the buildings erected in this spirit always carried some characteristics of the theatre realised in Parma.

In this logical sequence of history, there were exceptions that broke out of the spatial rules adopted there. The Teatro Farnese's predecessor, the all'Antica stage form realised in a small building in Sabbioneta, was the first, as yet unconscious, attempt to create a theatre of spectator and actor. The continuation was lacking.

Similarly, the theatre hall in Mantua, which retained Baroque principles, was ahead of its time with its functional possibilities. Bibiena created the world's first object combining science and art in one space. And this idea did not gain wide acceptance at the time.

The hall with changing space in the newly erected building for the Bydgoszcz University of Technology is in keeping with the idea of the building being the work of a baroque architect. Science and education are priorities. Only that educationally should be understood as the need for the existence, or perhaps rather the restoration and development, of a student culture, which in the 90s, the years of political and economic change, disappeared completely.

The academic community on the university campus will be able to actively participate in cultural events, also acting creatively. The integration of didactics, and perhaps more broadly of science and culture, was the guiding principle behind the programme and spatial assumptions of the project. The functional concept incorporates contemporary video and audio transmission technologies, as well as mobile walls and practicables that allow the didactic and performance spaces to be shaped according to the current needs of university teachers and performers.

Piotr Obracaj - Eng. Arch. DSc Prof. of University of Applied Sciences in Nysa

Anna Stefańska, Agnieszka Chudzińska

### BEAUTIFUL URBAN SPACES AS A POSITIVE CATALYST OF CITIES DEVELOPMENT IN POLAND

The study aims to examine the importance of creating Urban Spaces if Poland, which improves the positive development of the city. This kind of research arises from the need for common areas for spending time on a fresh air after the era of the pandemic. Therefore it is essential to examine the factors contributing to creating aesthetically pleasant and attractive urban environments. The paper aims to investigate and exploit what creates a Beautiful Urban Space by analysing the literature review on the subject as well as comparison with the recent competition for the best urban space in Poland. Introducing this method, finding negative and positive implications on different aspects, defines the new perception of generating well-being in urban public spaces practices in Poland.

Anna Stefańska - Eng. Arch. PhD, Warsaw University of Life Sciences Agnieszka Chudzińska - Eng. Arch. PhD, Warsaw University of Technology Malwina Tubielewicz - Michalczuk

## SYMBOLS IN THE URBAN SPACE OF CZĘSTOCHOWA AS A MESSAGE OF TRADITION, VALUES AND ART

Częstochowa is a city located in the Silesian Voivodeship, whose origins date back to the 11th century. It received city rights in 1356. It is the largest religious centre in Poland, with 2.5million pilgrims arriving from all over the world to Jasna Góra in 2022. It is also an academic city and a growing centre for culture and the arts.

The paper is devoted to both historical and contemporary objects of Częstochowa, whose most important value is their symbolic dimension. The author presented religious, architectural and artistic objects, which are commemorations of important figures for the history of the city connected with literature, theatre, painting, sculpture and social activity for the benefit of the inhabitants.

The subject of the research is an analysis from the point of view of transformations of contemporary meanings and symbols, to which the landscape space of one of the most famous city arteries, i.e. the Avenue of the Blessed Virgin Mary, has been subjected. The subject of the research concerns the analysis of realised examples of artistic objects located in the area of the city's main artery and the neighbouring Old Market Square located in the district known as the Old Town, which is used not only by residents and tourists, but also by crowds of domestic and foreign pilgrims heading for the Jasna Góra sanctuary, which is the dominant point of the city's landscape.

In this urban space, art also found its place, which was considered a good background and stage for artistic activities in the form of, among other things, sculptures, monuments and murals commemorating the work of artists, thus creating a space for reflection, emotions and memories.

The article is concluded by considering whether, in modern times, it is possible to combine the desire to create modern public space with the preservation of historical continuity and undeniable urban values.

Malwina Tubielewicz-Michalczuk - Eng. Arch. PhD, Częstochowa University of Technology

Nina Sołkiewicz- Kos

## CITY SQUARE - THE EVOLUTION OF PUBLIC SPACES ON THE EXAMPLE OF THE CITY OF CZĘSTOCHOWA

Częstochowa is a city with a rich history and a clear spatial structure. Downtown areas occupy an important place in it. They constitute a space of particular aesthetic and functional value. Their way of development emphasizes the importance of the city and is an example of contemporary continuation of urban tradition.

In this article, the author presents the spaces of urban squares that belong to down-town areas. Each of them is an attempt to refer to the past and relate to the present. The architecture of these places and the urban context with its special historical, cultural and social value oblige a thorough analysis of the design activities that are to exemplify the contemporary continuation of the urban tradition and are to shape the vision of the future of these places.

Respect for the context of the place and its creative continuation is part of contemporary trends in the design of urban spaces in urban areas. This is particularly important for maintaining a good planning tradition.

Justyna Kleszcz

# THE BEAUTY OF NEW URBAN FUNCTIONS CREATING AESTHETIC VALUE OR USING EXISTING ELEMENTS

The following text aims to answer the question of how the aesthetic value is given to functions which appear as novelties in contemporary urban spaces using the example of buildings intended for urban agriculture. Since most of them are created as part of multifunctional facilities and are extensions of existing infrastructure, the way they are shaped and their final aesthetic expression is a product of technical needs and possibilities.

Natural beauty in the city has been, often by contrast, associated with the emergence of greenery, which builds up, as it were, on its own, creating principles that inspire the discovery of a perfect geometry, a harmony within each urban scale. Hence the potential for a new function which, although its subject is nature, is however inherently enclosed by an architectural form.

The last decade has brought the first realisations of agriculture integrated into the urban fabric and treated as an urban function, so it has not yet managed to develop its own clearly defined aesthetic. However, it is clearly influenced by several basic functions from which urban agri-culture is derived, i.e. intensive agriculture, industry, housing and recreation. These aesthetics are often at odds with each other, but they already offer the possibility of picking up certain directions to ensure the harmonious combination of seemingly contradictory elements. The use of symbolism of place, of existing characteristic elements signifying local tradition, which are transformed for the new function, and their inscription, both by contrast and continuation in the existing urban context, are frequently used tools.

This analysis will be based on examples of built complexes and buildings for which it is possible to objectively assess reasons that evoke a sense of harmony or disharmony on different levels of reading space - physical, symbolic or historical. Among the examples discussed will be building complexes with a dominant residential function (S\*Park/ Denver, Taisugar Circular Village/ Tainan, or Secret Gardens/ Montpellier), as well as industrial and logistical (Ferme Abattoir BIGH/ Cureghem, or Lufa Farms/ Montreal, and Gotham Greens/ New York and Chicago) and office and exhibition (Nature Urbaine and Agrovent/ Paris, Agrotopia/ Roeselare).

Justyna Kleszcz - Eng. Arch. DSc Prof. of Opole University of Technology

Jakub Tomiczek

# CONTEMPORARY TRENDS IN THE DEVELOPMENT OF SMALL SETTLEMENT UNITS ON THE EXAMPLE OF THE CITY OF NYSA

Two main aspects.

Sustainable development and its demands and significant infrastructure projects in the city. Analysis of contemporary trends in the construction and transformation of cities on the example of the city of Nysa.

Importance of local spatial development plans in the context of city development, influence on city design and architecture.

#### Szymon Łoziński

## CITY-SCULPTURE ARCHITECTURAL AND URBAN DEVELOPMENT ON THE EXAMPLE OF THE CITY OF KASSEL

The city of Kassel is famous for its many beautiful parks, which are an important element of the city's landscape, forming a spatial sculpture stretching across most of the city. The most famous park is Wilhelmshöhe, which is one of the largest and most beautiful landscaped parks in Europe. It was inscribed on the UNESCO World Heritage List in 2013 along with Karlsaue Park, which stretches along the Fulda River, dominating the spatial layout of the city on which the urban development is based.

The spatial development of the city of Kassel was a dynamic process that dates back to the Middle Ages. At that time, Kassel was a small town whose buildings were focused around the castle and the St. Martin's church. Over the following centuries, the city began to develop, enriching its architecture and developing public spaces.

In the 18th century, under Duke Wilhelm IX, Kassel experienced a period of prosperity, which resulted in the construction of many new buildings and the development of infrastructure. Such facilities as Karlsaue Palace, Fridericianum Museum, and Kassel Theater were built.

In the 19th century, Kassel became an important industrial center, resulting in the construction of new residential neighborhoods, factories, and warehouses. At that time, transportation was also developed, and the city gained connections to other cities and countries.

In the 20th century, Kassel underwent significant changes as a result of the destruction during World War II. During the city's reconstruction, new residential neighborhoods and numerous public buildings were created, including the town hall and modern shopping centers. At this time, the city also focused on developing public spaces, creating new parks and gardens, as well as new squares and streets, which improved the quality of life for residents.

In the 1990s, the city of Kassel underwent another stage of spatial development, resulting in modern residential neighborhoods and new public facilities, such as entertainment venues. During this time, the city also focused on developing tourism, festivals, and cultural events, which attracted many tourists.

The city's architecture and urban development form a work of art created by urban planners and architects, which constitutes a cohesive spatial sculpture.

Szymon Łoziński - Eng. Arch. MSc

(6) Architectural space and existential space: ideas, technology and implementations

#### Gordana Rovčanin Premović

### THE IDEOLOGY AND SYMBOLISM OF SOCIALISM IN THE TOURIST ARCHITECTURE OF MONTENEGRO

The focus of this topic is the research on the symbolism of socialism in the tourist architecture of Montenegro in the second half of the 20th century. The research contains a multi-layered analysis of the emergence and development of tourist architecture in the area of the Montenegrin coast in the specific socio-political context of the former Socialist Federal Republic of Yugoslavia. The time to that the research refers is the time with a special ideological message of socialism, not only as a special political system, but as a way of life with the dominant idea of social equality of all citizens and the time of the appearance of mass tourism and social tourism. This social phenomenon led to the construction of tourist facilities intended for the holiday and recreation of workers, youth and children.

The study represents the way that entire complexes of tourist construction and numerous tourist settlements were created in an undeveloped area, which changed the natural landscape and image of the Montenegrin and Yugoslav Adriatic coast. This research shows how the symbolism of socialism was implemented in the architectural and urban concepts of tourist architecture through different spatial and functional relations that propagated the idea of this time and generated the identity of the researched area.

Ivana Miškeljin, Miljan Janušević

### THE IDEA OF DEMATERIALIZATION IN ARCHITECTURE: TWO SPECIFIC EXPERIMENTAL APPROACHES

The research topic is the aesthetic idea of dematerialization in contemporary architecture and its application through two experimental architectural projects. The research of this idea stems from the desire to seek the ideal of harmonization between architecture and nature.

The concept of dematerialization emphasizes the primary function of architecture as a shelter (protection from the external environment) while simultaneously exploring its disintegration into the natural context (as a consequence of being overwhelmed by the beauty of nature itself). In this effort to dematerialize architecture in favour of nature, the idea is to make the architectural expression as restrained as possible.

More precisely, the goal is to emphasize the natural context through transparent and reflective architectural materials. The aim is to multiply the connections between architecture and nature, evoke the intertwining of physical and imaginary worlds, and a feeling of beauty. Architecture conceived in this way is sensitive to changes in the atmosphere around it (changes in the amount of light, weather conditions and renewal of nature). This topic is vital in experiencing interior space. It evokes a sense of connection with the context and well-being.

The paper will consider the theoretical background of dematerialization in architecture and refer to important contemporary architectural projects that examine this idea. The development of construction technologies and materials constantly encourages the exploration of this idea of beauty. Through their two projects, the authors want to explore two specific architectural approaches to dematerialization:

- 1. Library in Hyde Park in London the approach to which the building is conceived as a subtle installation in the landscape;
- 2. Housing building in Novi Sad a gradual dematerialization of the architectural structure within the park.

Ivana Miškeljin - PhD Assoc. Prof., University of Novi Sad (Serbia) Miljan Janušević - teaching assistant, University of Novi Sad (Serbia) Wiesław Rokicki, Anna Stefańska

### UNCONVENTIONAL FORMS OF ARCHITECTURE VERSUS THE LOGIC OF LOAD-BEARING STRUCTURES

The quality of engineering solutions influences the way contemporary architecture is designed. The search for free-form buildings, where structural form becomes the dominant element of architecture, requires a change in approach to traditional design. Increasingly, contemporary forms are inspired by shapes found in Nature. This search, admittedly, is not a novelty, as the borrowing of symbols from the natural world is well known. Depictions drawn from Nature have shaped specific styles in architecture or the division of structural elements. Today's search often involves innovative processes in design and the technical-technological and material transformations taking place, particularly in digital fabrication and virtual design.

The aim of the presented article is to identify objects whose form arises as a result of creative and technological possibilities in the creation of free-form building volumes and an attempt to identify them with patterns and symbols known in the history of architecture and regarded as symbols of beauty. The paper presents selected free-form objects created in the 21st century, whose realisations are such examples of unconventional thinking aimed at creating a sustainable environment.

#### Anna Telatycka

## AN ATTEMPT TO INTERPRET THE MEANINGS OF A CHURCH ROSE (ROSETTE) MAPPED WITH THE HELP OF CYMATICS

We can perceive and feel sound through visual and emotional perception. Sounds shape matter. They have the ability to create geometric patterns. Using cymatics, the shapes created by certain sound frequencies can be visualised. The effects of sounds can therefore be viewed. They are the patterns that are formed from densifying matter under the influence of sound vibrations. Sound is reproduced through a specific shape, through the form of a widely understood object. Throughout the animate and inanimate world, there are patterns of repeating rhythms in which everything exists in a state of constant vibration, oscillation and pulsation. Nikola Tesla used to say, " If you want to understand the Universe, start thinking in terms of energy, frequency and vibration". The world we live in can be defined as an interaction of vibrational frequencies.

Sounds create shapes (forms). Shapes of physical structures also create sounds (vibrations) usually in the form of infrasound inaudible to the human ear. Such sounds have a high permeability and a strong effect on inanimate and animate matter. The influence of this energy determines human behaviour and determines the state of health. The harmonious flow of vital energy is assisted by shapes with soft, rounded lines, created in accordance with the principles of Sacred Geometry. Shapes in the form of graphic signs and ornamental motifs, which have been preserved in the traditions of many cultures, have a similar effect.

In architecture, it is possible to discover relationships with figures created when sound interacts with matter. Some of these shapes are reproductions of the rosette found in Christian temples, among others. This work attempts to interpret the meanings of this commonly occurring shape. Every object can be a generator or amplifier of sound wave energy. The acoustic environment determines the specificity of a given space.

The rosette is a specific architectural element for many reasons. It is a window through which colour-filtered light enters the interior, it is a kind of moderator of the acoustic environment of the interior, and it has a symbolic meaning, encoding the so far not fully understood reality of the widely understood human environment.

Anna Telatycka - MSc, Poznan Uniwersity of Technology

#### Agnieszka Chudzińska, Anita Citarelli

### AESTHETICS, ERGONOMICS, PARAMETERIZATION - CONNECTIONS OVER THE YEARS

While considering the issue of contemporary creation of architecture in the context of aesthetics, what aesthetics signifies in essence should be considered. Numerous definitions of beauty, being a subjective perception depending on a given culture, have been coined. However, it is possible to specify the features an aesthetic object is determined by, such as; appropriate proportions, colour harmony, moderation and usability. Ancient Greeks believed that beauty consists in a proportional ratio of individual parts to the whole. Nowadays, however, it is known that each epoch valued its own set of proportions created intuitively with use of the experience of its masters. Only after an analysis did these systems create geometrical patterns of object aesthetics. Nature, together with humans who not only notice intuitively proportions but also follow them, corresponds to the principles of geometric proportions.

The Architect's Data was based on the concept that industrial production, cheaper than craft production, would solve social problems associated with the housing industry, whereas all people are characterised by similar needs when it comes to living conditions. Such an approach in consequence led to the creation of new science, namely ergonomics. A great deal of information that an architect could find in the abovementioned book is now basically embedded in the programme the architect works on or simply available on the Internet. Premises to the obsolesce of the book can already be found today by investigating the way in which the BIM programmes are constructed, or by means of observing programmes for creating geometry by introducing algorithmic notation, to which conditions are entered and then one the optimal layout is yielded. In this way, the concept of aesthetics is also altered and adapted to our day and age. The appearance of the object is often parametrically provided by the programme.

Optimization of the layout takes place at a selected angle, the main factor being the largest possible usable space that results from the needs of investors, so that the external form is often subject to the results of interior layout. Thanks to algorithmic notation, it is possible to create numerous alternative solutions that provide equal usable space area. Manipulating the algorithmic notation, the body of a building is subjected to the intuition of an architect. When analysing contemporary architecture, a question arises: Do the objects created by the most recent software that adapts the geometry to human needs and scale, which in itself can be seen as a golden ratio, remain beautiful?

Agnieszka Chudzińska - Eng. Arch. PhD, Warsaw University of Technology Anita Citarelli - Eng. Arch.

Hanna Michalak, Jerzy Suchanek

### TRANSPARENCY AND PENETRATION IN MODULAR ARCHITECTURAL COMPOSITIONS

Buildings with a clear modular structure (in terms of composition and construction) should also be characterised by a clarity of functional layout, which seems to be particularly important for public buildings. The role of light in the correct reading of functions (also through the use of archetypes - symbols in the sequences of internal spaces) by the user of such buildings, combined with the influence of more or less desirable acoustic effects, is the central theme of this paper.

Hanna Michalak - Eng. Arch. DSc Prof of Poznan University of Technology Jerzy Suchanek - Eng. Arch. DSc Prof of Poznan University of Technology

#### Mieczysław K. Leniartek

### LEVELLING THE "DIALECT OF ARCHITECTURAL PATTERNS" ON THE EXAMPLE OF THE BUILT ENVIRONMENT OF THE SUDETES

The aim of the article is to show the current changes in attitudes in the architectural design of buildings located in a mountain environment with outstanding landscape values. These changes are a derivative of the departure from traditional aesthetics and replacing it with the aesthetics of happiness, as well as the increasingly popular environmental aesthetics.

The considerations contained in the article are based on extensive literature on regional architecture and its role in shaping the broadly understood human living environment, as well as changes in the cultural landscape of the Sudetes.

A comparative analysis of the literature on changes in the space of the Sudetes was adopted as the research method. It was extended to the observation of the latest architectural creations inspired by the cultural values of the subregion. This made it possible to determine the impact of traditional patterns - unique and closely related to a given place and its community – on the form of new architecture.

Contemporary architecture in a regional context refers to tradition transmitted through specific architectural signs in a variety of ways, which is documented by buildings that can be considered as a quote, copy, imitation, inspiration or negation of traditional patterns. These diverse and so different attitudes are visible in new architectural realizations in the Sudetes, whose aesthetics seem to depart from traditional principles towards environmental aesthetics. In the light of the presented examples, it seems that ensuring spatial order in the Sudetes can bring not so much the duplication of traditional morphological signs, but the reference to the natural context perceived in the ecological dimension.

Keywords: environmental aesthetics, regional architecture, cultural landscape of the Sudetes, dialect of architectural patterns, language of regional patterns.

Ulyana Ivanochko, Svitlana Topylko

### HARMONIZING THE RESIDENTIAL ENVIRONMENT: BEAUTY AND UTILITY IN RESIDENTIAL ARCHITECTURE

When talking about residential architecture, the criterion of beauty is considered here not only as aesthetics, but as a combination of functionality and aesthetics in the right proportions to achieve the desired effect.

In the creation of the residential buildings environment, a number of features are important, which are related both to the characteristics of the built architectural-urban environment and to the planning and architectural characteristics of the residential unit - this is the context of the surroundings, the scale of the residential development, its proportions, the layout of the open spaces, the organisation of the adjacent area, the defined elements of the residential building: communication and non-residential spaces, rooms and interior spaces.

The task of organising a comfortable residential environment is to harmonise the spatial-temporal, orientational and emotional-aesthetic ties and parametric features of the environment. Paying attention to the problem of harmonising the compositional volumetric-spatial solutions of the visual elements of the residential environment, it is necessary to choose the means of organising the landscape of the territory next to the house, the geoplastics of the territory, the decorative elements of small architecture, the means of landscaping the exterior or interior of the building.

The search for originality and novelty of decisions is inherent in the creation of modern residential architecture. The creation of new dwellings is a constantly repeating process, which is why it is so important to balance originality with skilful integration into the surroundings, the correct choice of forms, proportions, materials and colours, not forgetting functionality.

Modern technologies are one of the elements shaping the appearance of modern architecture, especially the quality of residential architecture. Therefore, innovation must ensure the continuous evolution of architecture - functional and aesthetic.

Ulyana Ivanochko - Eng. Arch. Assoc. Prof, Lviv Polytechnic National University Svitlana Topylko - Eng. Arch. Assoc. Prof, Lviv Polytechnic National University

#### Etleva Bushati

### MEANING AND SYMBOLISM OF INDUSTRIAL ARCHITECTURE IN ALBANIA

Industrial architecture represents the evolution of technology, the growth of industry and the presence of new urban forms in the context of the city. Albania has a rich industrial history that dates back to the early twentieth century. The country's industrial sector has experienced significant growth and transformation particularly during the socialist period from 1945 to 1991.

Industrial facilities and complexes built over 50 years impacted the urban and social development of Albanian cities. Albania's industrial architecture is characterized by a mix of different styles, including socialist realism and functionalism. These styles reflect the political, social, and economic history of Albania. The buildings, which include factories, mines, and power plants, are scattered throughout the country and their symbolism is multifaceted. They represent Albania's aspirations to modernize society and build socialism.

Moreover, industrial architecture in Albania has been the subject of different approaches and attitudes. Some argue for its preservation as part of the country's cultural heritage, while others advocate its demolition and replacement with more modern structures. In this context, this paper investigates the meaning and symbolism of industrial architecture in Albania and its impact on the country's identity and cultural landscape, referring to the city of Tirana.

Industrial architecture in Albania plays a significant role in the country's cultural landscape and identity. Its symbolism is complex and multifaceted, representing both the achievements and the challenges of Albania's industrial past. As Albania continues to evolve and modernize, the preservation and interpretation of its industrial heritage will remain a crucial issue for its people and policymakers.