

DREAMSilesia

Book of Abstracts

International
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Design

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in Architecture

Gliwice, 22nd-23rd April 2022

DREAM
Silesia

Design - Research - Education
in Architecture
Multiconference - 2022

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Design-Research-Education
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Multiconference 2022

BOOK OF ABSTRACTS

Gliwice, 22nd-23rd April 2022

Faculty of Architecture
Silesian University of Technology

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Opening statement



The Faculty of Architecture of the Silesian University of Technology is trying to be a creator of good architecture, urban planning and design, popularizing the scientific, didactic and creative achievements of the employees and students. Outstanding scientists from Poland and abroad are invited to participate in research projects. Together with them, the Faculty creates a new quality of scientific research in architecture, urban planning, as well as in the field of design and fine arts. At all times the advantage and research strength of the Faculty of Architecture has been harbored in a variety of research interests of the staff and partners. The faculty is involved in many innovative ventures, including the fields relative to the Priority Research Areas of the Silesian University of Technology (parametric design, universal design, qualitative research, senior architecture, for the blind and visually impaired, ergonomics, conservation of monuments and revitalization of post-industrial facilities, smart city, climate and environmental protection, space architecture, promotion of arts and design in public space, application of virtual reality technology). Research and teaching staff also conduct research on the future of architecture and urban planning - architecture that meets the needs of users of successive generations.

DREAM Silesia is a great international scientific event in Silesia. DREAM Silesia is a multi-conference in the field of design, research and education in architecture. It is a meeting of outstanding scientists, exchange of knowledge and experience. It comprises several thematic sub-conferences presenting the diversity and at the same time the latest directions of scientific research, including: **Architecture, Technology and Health (at-z), Interdisciplinary Research in Architecture (BIWA) - smart Architecture, Region, Town and Country, Innovative Ideas in Architecture, Nature - Architecture – Culture, design + art + science.**

This extremely interesting discussion is addressed to a wide range of specialists: architects, sociologists, social psychologists, cultural study experts, specialists participating in spatial transformation processes, but also to representatives of the economic environment, non-governmental organizations and local authorities. The presentations offered by the participants contain questions and answers involving e.g. the latest challenges of contemporary architecture and urban planning, the role of people, their preferences and modern technologies in determining a new quality of the environment.



Dr hab. Eng. Arch. Klaudiusz Fross, Prof. of SUT
Dean of the Faculty of Architecture of the Silesian University of Technology
Head of the Multiconference DREAM Silesia





Opening statement of Silesian Regional Chamber of Architects (SLOIA)

Dear Colleagues,
Dear Sirs and Madams,

On December 15th 2000 the Polish Parliament proclaimed the act of self-government of architects, urban planners and civil engineers. This day we may accept as a day of beginning creation of our Chamber of Architects. It took one year time of actions to prepare and organise, first on national level, than on regional level in Silesian voivodship and in 22nd of January 2002 took place the first congress of Silesian Regional Chamber of Architects (SLOIA) on which the internal authorities has been chosen. The Chairman of the Board was elected our colleague the late Michał Buszek. This date is a birthday of our regional chamber. Therefor on occasion the 20th anniversary of our chamber with a great pleasure and satisfaction we give you, as a Board SLOIA, the second publishing.

We decided to prepare this publishing in such difficult for our society, for our architectural society, pandemic time. It modified completely our way of functioning, discrediting and changing our behaviours and habits. Despite this or maybe because of it as a board we decided to do this demanding task. We wanted to prove that no matter of times, as a silesian architects community, we are able to take up the challenges also in this new reality – especially that overcoming difficulties and setting yourself ambitious goals always were and still is the traditional features of silesian architects. The pandemic time in significant way has changed our reality therefor in many texts in this publishing we can find problems caused by COVID-19 as the authors write.

From the beginning of the SLOIA RP, the foundation of the regional chamber is stability of the operations, building and continuing of local traditions. That is why we decided that this publishing will refer to the publishing we made for the 15th anniversary of SLOIA RP. As it was before we put the most important information about the SLOIA RP structures, from the beginning till now. We put in also the 20 years calendar which illustrates the among of works and initiatives we made. Documentary character of this publishing you can see also in: the list of the

members of SLOIA RP, which devotion and works for chamber was honoured by silver and gold Chamber of Architects badge, „the sad list” of colleagues and friends who passed away in this 20 years’ time and also a list of the actual (June 2021) members of SLOIA RP.

20 years of activity it is long enough to make a wider reflection on internal activities- very diversal- but also for the external ones too. On that base, to sum up last year’s experiences, successes and failures contained in authors statements, we are able to see the future tasks and activities we should take in having into the consideration reaching out the previous standards and looking forward for future challenges.

Paraphrasing Cyprian K. Norwid we can say that the Chamber of Architects is our common –as a architects community -effort and duty. It wouldn’t be possible if not the commitment, devoted time of our Colleagues in 20 years’ time of our chamber. Some of them are unfortunately gone but this publishing is also the opportunity to remind their faces.

Having this anniversary I have this privilege to thank to all of the Colleagues whose work for SLOIA RP creates the integrated, supportive and significant, as a whole country, silesian architectural community. I would also like to thank to the ladies who work in chambers’ office-without them it would be impossible to be so effective.

That is the goal of this publishing, to thank through it everybody who was in any sort of way concurred – and still is- to so efficient actions of the Silesian Regional Chamber of Architects. In this way we would like to show our gratitude and appreciation. The second goal is to leave a documentary trace, which is so important in our very fast lifestyle and is easy to be forgotten. We should always have in our minds that the architectural creativity should not only be focused on temporary activity but it should be supported in tradition founded by generations. It also has wider aspect – to put another values to national and European culture. Without very strong embedding in tradition but simultaneously progressive looking forward in the future, it is not possible to create valuable architecture and human friendly space for our society. Therefor for 20 years our activity in SLOIA RP, except action on architects community, our main task -despite difficult conditions- was the actions for the quality of the space around us.

There are some challenges waiting for us, which we do not know about their scale and range. The necessity in building post pandemic reality, in harmony with the paradigmatic of „New Green Deal” and society friendly NEB – these are the tasks for the following years. I hope that these goals will be put into practise and will be continued for the next decades of work of Silesian Regional Chamber of Architects.

I am convinced that these are our common birthday wishes from and for the silesian architects community.

Piotr Średniawa, Architekt IARP
Chairman of the Board
Silesian Regional Chamber of Architects

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Architects

KEYNOTE SPEAKERS:

Lamberto AMISTADI, University of Bologna



Lamberto Amistadi is an architect and an associate professor in the Department of Architecture at the University of Bologna – Cesena Campus and the coordinator of the ArchéA program. He is the deputy director of the scientific journal FAMagazine, devoted to research and projects concerning architecture and the city, and co-director of the series TECA, *Teorie della Composizione architettonica* (Naples: Clean). Along with Ildebrando Clemente, he founded and directs the series SOUNDINGS: *Theory and Architectural Openness* (Florence: Aión), which has included monographic volumes on John Hejduk and Aldo Rossi. He is also the author of numerous publications.

Alessandro CAMIZ, Özyeğin University, Istanbul

Alessandro Camiz graduated (BArch+MArch) in Architecture at “Sapienza” University (Rome, 1999). Before graduating, he cooperated with Sartogo Architetti Associati for the New Italian Embassy (Washington DC) and the Church of Jesus’ Holy Face (Rome). In 2007, he discussed his doctoral thesis on “History of medieval town planning in Ravenna” (Sapienza), and therein attended Post-Doctoral studies until 2014. He taught at the School of Architecture of University of Miami and at the Faculty of Architecture of Girne American University (Cyprus), where he directed until 2018 the International Centre for Heritage Studies (ICHS). He is member of ICOMOS-Italy, and secretary general of the Cyprus Network for Urban Morphology (CyNUM). He is now associate professor and director of the Laboratory on Dynamic Research on Urban Morphology (DRUM) at Özyeğin University, Istanbul and editor of the Journal FORMA CIVITATIS International journal of urban and territorial morphological studies, Grünberg Verlag, Weimar and Rostock. His main research interests are in architectural design, urban morphology and advanced digital technologies for documentation and conservation of architectural heritage.

SPECIAL GUESTS:

Vincenzo BAGNOLO, University of Cagliari



Vincenzo Bagnolo graduated in Civil Engineering and holds a Ph.D. in Architectural Engineering. He is Associate Professor in architectural drawing and representation (SSD ICAR/17) at the Department of Civil Environmental Engineering and Architecture (DICAAR) in the University of Cagliari. He teaches the course of “Architectural Drawing” in the degree course in Architectural Sciences, the “Architectural Survey” module in the “Integrated Architectural Survey and Restoration Laboratory” and the course of “Drawing and visual communication” of the master's degree course in Architecture at the Faculty of Engineering and Architecture of the University of Cagliari. He is member of the Doctoral School of Civil Engineering and Architecture of the University of Cagliari. Since 2021 he has been coordinator of the bachelor's degree course of the University of Cagliari in Architectural Sciences. His research interests are mainly addressed to the themes of drawing in his speculative and explorative dimension, survey and representation of architecture and environment, and drawing as an instrument of expression and communication of creative and planning thought. Speaker at national and international conferences, he is the author of over 70 scientific papers.

Marco Giorgio BEVILACQUA, University of Pisa



Marco Giorgio Bevilacqua is full professor of Architectural Representation at the University of Pisa. He's professor of Architectural Drawing 2 and Methods of Architectural Survey in the Master Degree in Architecture and Building Engineering and of Techniques of Representation in the Degree Course of Engineering for the Industrial Design at the School of Engineering of the University of Pisa.

His research activity is in the field of historical architectural heritage. In this field, the research interests are mainly related to the architectural and urban survey, always meant as main tool for analysis and interpretation, with interdisciplinary and methodological in-depth in the field of digital survey and digital representation for knowledge, restoration and diagnostics.

Cecilia Maria BOLOGNESI, Politecnico di Milano



Graduated in Architecture in 1987 at Politecnico di Milano, and PhD in 1996 at University Institute of Architecture Venice, she is currently Associate Professor in the Scientific Sector ICAR/17 at the Department of Architecture, Building and Construction at Politecnico di Milano.

She is responsible for the implementation of the Digital Skills in the Master degree of the School, Scientific Director of the LaborA Laboratory (Fisical and Virtual Modelling laboratory of Politecnico). She has developed research in national and international context, mainly related with tangible and intangible case studies, focusing on the relationship between survey, representation in the field of digital heritage and BIM environments.

The main focuses are (I) Application of BIM methodologies in the construction field focusing on modelling/on processing/ applied in the AEC sector as in the field of Cultural Heritage (H-BIM); (II) Experimentation of image based modelling techniques for digitization, documentation and develop of virtual environments; (III) Survey and analysis of existing for cultural virtual tours for museums or institutions.

The above-mentioned activities have resulted in monographs, numerous works on international journals ISI and Scopus indexed journals, contributions in books, international conferences.

She has worked for several public environment dedicated to modelling from the territorial scale to construction scale to finalize BIM workflows and virtual environments such as the Lombardy Industry for Public residential asset, ALER. She is part of the task group coordinating BIM4EEB H2020 project in Politecnico di Milano. She is past member of the Landscape Commission of the Municipality of Milan 2009-2012; past member of the council of Milan Order of Architects from 2014 to 2017; past scientific coordinator of BIM Modelling courses for the Order of Architects -2016.17.

Doris GSTACH, Erfurt University of Applied Sciences



Doris Gstach is a landscape architect and open space planner by profession. She has been working as a practitioner, researcher and teacher in Austria, Germany and the US. Since 2012 she holds a position as professor at the Department of

Urban and Spatial Planning at the University of Applied Sciences in Erfurt/Germany. She teaches a variety of undergraduate and graduate classes and studios on open space planning and urban design. Her recent research focuses on strategies of open space provision as contribution to environmental justice and planning tools for green infrastructure in cities facing densification processes.

Contact: doris.gstach@fh-erfurt.de

Marek JAKUBOWSKI, Special School and Educational Centre for Blind Children in Owińska by Poznań



01.09.1982 to 2019 – teacher in School Educational Center for Blind Children in Owińsk near Poznań.

01.05.2000 to the present – running a publishing company that deals with all types of graphics and typhlographics and prints in Braille.

- laureate of three awards of the Minister of National Education for outstanding achievements in the field of Education;
- laureate of the first prize of the Minister of Infrastructure for outstanding achievements in the field of typhlocartography;
- Knight of the Order of the Smile;
- Author of the study: 'Technology for producing maps and convex plans for the blind and visually impaired';
- Author of numerous publications in the field of typhlography and typhlography;
- Co-author of the first Polish study: 'Geographical atlas of Poland for the blind and visually impaired' - typhlographic development, printing and stamping;
- Author of the Polish electronic font of Braille;
- Author of patents in the field of typhlographics;

- Author, co-author and performer of hundreds of graphical touch publications from the tyflogical maps` category;

Author of hundreds of graphical tactile publications from the typhlographic category i.a. for: the Zachęta Gallery in Warsaw, the National Museum in Poznań, the National Museum in Gdańsk, the Museum in Stalowa Wola, tyflographies of cultural monuments for Tarnów, Kraków and Nowy Sącz, Botanical Gardens.

Author of 47 educational, typhlographic book items for the blind and visually impaired i.a. :

- Album of road crossings for learning spatial orientation -Polish, Georgian and Armenian version;
- Symbols of World War II for the Warsaw Uprising Museum;
- Students book for learning spatial orientation in a proximal space;
- We get to know the Polish Braille alphabet and the Polish Literary in black-ink;
- Album of geometric figures;
- Relief facade of monuments;
- Inflorescences (multilingual versions);
- Tangrams;
- Mazes - educational games for the blind;
- Periodic table of elements.

Author of the technology of making tyflogical casts and copies of museum objects - structural composites i.a. :

- Facades of monuments for the city of Tbilisi;
- Casts of touch plans for Zakopane;
- Copies of Durer alabaster for the National Museum in Gdańsk.

Małgorzata KĄDZIELA, University of Silesia Katowice



Doctor of Humanities, lecturer at the Institute for Cultural Studies of the University of Silesia in Katowice. Editor-in-chief of the international and interdisciplinary journal *Loci Communes*. *International Journal of Studies on Spaces in Arts and Humanities, Anthropology and Architecture*, published by the University of Silesia in Katowice. He deals with issues of sensory perception in interdisciplinary and transcultural contexts. She collaborates with architects and urban planners, with whom she designs public spaces and conducts research. Organiser and leader of national and international educational workshops, including architectural workshops for children, youth and students in Poland and abroad. Author of publications on design, perception of music and sound. Animator of cultural events.

Magdalena KĄTNIK – KOWALSKA, Communal Cultural Centre in Żołyńia



Magdalena Kątnik – Kowalska, a political scientist and culture manager, director of the Centre of Culture in the Commune of Żołyńia, chief editor of the Żołyńia newspaper "Facts and Realities" ("Fakty i Realia") author, co-author and publisher of books and publications about Żołyńia, implementer of her own projects in the field of culture and social development, the most important ones including: "Altars of the Past" ("Ołtarze przeszłości") – the programme of renovation of period tombstones in the Żołyńia cemetery; " Our Artists' Gallery" ("Galeria naszych twórców") – the promotion of local artists and craftspeople; the Żołyńia People Reunions ("Zjazdy Żołyńiaków") – the continuation of a pre-war tradition of organizing a big-scale event attracting compatriots from all over the world.

The discoverer, depositary and promoter of the artistic legacy of the Dąbrowski family, the woodcarvers from Żołyńia specializing in sacred art. For several years, she has been promoting "THE DĄBROWSKIS - PROJECT" ("PROJEKT DĄBROWSCY") aiming at the documentation and exposition of the legacy of this distinguished family. Her main activities include: research, promotion in mass media, social projects involving artists, history aficionados and local enthusiasts; attempts to create the Centre of Local Heritage in the Dąbrowski family's town house. In 2021, Magdalena Kątnik-Kowalska completed post-graduate studies "Heritage Academy" organized by the International Centre of Culture and the University of Economics in Cracow.

Irma KOZINA, Academy of Fine Arts in Katowice



Polish art historian and educator whose exhaustive books on contemporary arts, architecture, fashion and design history are widely read in Poland, born February 5, 1964, Sucha Beskidzka. Graduated from the Jagiellonian University in Cracow with an MA degree in art history in 1988, became an assistant at the Art History Department of the Silesian University, Katowice the same year, received a PhD in art history at the University of Wrocław in 1996 and a habilitation degree in 2007 at the University of Warsaw. She was conferred the title of full professor by the President of Poland in December 2021. In 1998 she began lecturing in the field of art history and design at the Academy of Fine Arts in Katowice where she became a professor in 2018. However, since 2008, he also lectures at the Faculty of Architecture of the Silesian University of Technology in Gliwice. She is the author of many articles and books (including "Art Deco", "Icons of design in the Silesian Voivodeship", "Icons of architecture in the Silesian Voivodeship in the twentieth and twenty-first centuries", "Polish design", "History of fashion. From crinoline to mini"). In 2012 she was awarded Silesian Tacitus for the book on Silesian design icons. For her academic and public work she was awarded the Decoration of Honor Meritorious for Polish Culture in 2018.

Katarzyna KRASOWSKA, West Pomeranian University of Technology



Vice-dean for organization and development of the Faculty of Architecture of the West Pomeranian University of Technology in Szczecin, B. Arch. (2011) and M. Arch. (2014) from the West Pomeranian University of Technology in Szczecin Architecture and Town Planning. She conducts research in the field of urban development, the development of the idea of Human smart City in Poland and universal design. Coordinator of universal design at the West Pomeranian University of Technology in Szczecin, co-founder of the “Symulatorium Dostępności” - a unique universal design laboratory. Project manager of the Academy of Accessible Space Development. Participated in the WS-RADS workshop (2010-12); WIRE (2013); EWWUD (2010-14) and was the organizer of the Mayor of Gryfino City Revival (2016) workshops. She conducts classes in the field of urban revitalization, social issues in architecture and universal design in shaping space. Since 2017, complementing the architect of the city of Gryfino, episodes, actions, participation in city activities in PIM - a program of partnership cooperation of Polish cities, similar to the URBACT program. In 2019, she defended her doctorate with honors. Sustainable development of small towns in Western Pomerania after Poland's accession to the EU, for which she received the award of the Minister of Development.

Stefania LANDI, University of Pisa



Stefania Landi graduated in Building Engineering and Architecture and obtained her PhD in Architectural Restoration at the DESTeC department of the University of Pisa, where she is currently research fellow and lecturer. Her research interests concern the theoretical and technical aspects of conservation and reuse of the architectural heritage, with particular attention to 20th century architecture and the problems of conservation of reinforced concrete. She is a member of Centro di Studi per la Storia dell'Architettura di Roma, member of ICOMOS Italy, and vice-president of the ICOMOS-International Scientific Committee on 20th Century Heritage. She has been visiting PhD Student at the Getty Conservation Institute (Los Angeles, CA) under the Conserving Modern Architecture Initiative, and visiting lecturer at the Silesian University of Technology (Gliwice, Poland) under the Erasmus+ programme. She published and presented her research studies in several international conferences on architectural conservation.

Assunta PELLICCIO, University of Cassino and Southern Lazio



Assunta Pelliccio, graduated in Architecture at the University of Naples; PhD in Civil and Mechanical Engineering. She is currently assistant professor (habilitated) of Representation and Survey of Architecture at the University of Cassino and in southern Lazio.

She is local coordinator of some Regional founded project in the field of Cultural Heritage as well as a member of some European projects, such as the Erasmus + program - RE-BUILT and thinkMOTION. She has been a member of some national projects such as CARTIS_CART (developed by the ReLUIS Interuniversity Consortium and Department of National Protection) and PRIN (Research Projects of the Italian Ministry) as well as scientific manager of the Agreements with the Municipalities of Southern Lazio for the study and survey of the historical building heritage.

Member of International Program Committee of Conference of Metrology for Archaeology and Cultural Heritage (Metroarcho-IEEE) and of Multiconference DREAM Silesian.

Member of the International Scientific Board Journal "Architecture Civil Engineering Environment" ACEE. published by the Silesian University of Technology-ISSN: 1899-0142 as well as the Scientific Journal on Architecture and Cultural Heritage -Disegnarecon-ISNN 1828-5961.

Editor of Springer publication. Reviewer for Nexus Journal; Springer Journal; IGI Global Hershey, Pennsylvania (USA); RA - Restauro Archeologico etc..

She has participated in numerous national and international conferences as chair, speaker, and special guest.

The main topics of the research are: GIS applied to small historical centers; The city of Cassino and its relationship with the Abbey of Montecassino; Medieval historic villages; Post-industrial sites in Southern Lazio and in the Silesian Region;

Digital photogrammetric survey of cultural heritage; BIM for the enhancement of historic buildings; Interdisciplinary studies.

She is authors of more than 70 national and international publications including monographs.

Martina PEŘINKOVÁ, VSB Technical University of Ostrava, FAST – Fakulta Stavebni, KateDra Architektury



Profesor Martina Peřinková is dean of the Faculty of civil engineering in VSB-Technical University of Ostrava. She is also the president of the international conference Architecture in perspective which Proceedings are included in Web of Science, she is the member of the Council of the Minister of Culture for research in the Czech Republic. Her habilitation thesis was about remediation plasters used on historic masonry, later the work was developed in impact article "Research into the influence of subsoil on sulphates, nitrates and chlorides accumulated in renovation plasters used for rehabilitation of monuments in the Czech Republic" . She does lectures about cultural heritage and renewal of sites. She was the part of team which focused on cemeteries and funeral art, and its outputs were the book "Mourning halls, the Space for the Ritual of Passing from this World into the Next" and the book "Cemetery as a public space" and many other articles about this topic. She works as an architect in her office Infer Way.

Andrea PIRINU, University of Cagliari



Andrea Pirinu (Cagliari, 1969).

Graduated in Civil-Building Engineering and PhD in Building Engineering.

Assistant professor at the Faculty of Engineering and Architecture of the University of Cagliari, he is currently lecturer in charge of the integrated course of "Survey and representation of architecture and the environment" within three-year degree in Architectural Sciences and of the "Laboratory of Drawing" within the degree in Engineering for the Environment and the territory. In the 2019 he achieved the national scientific qualification (ASN), pursuant to art. 16 of the law n. 240/2010, for the functions of Associate professor for the sector 08/E1-Drawing. Member of LabMAST (Laboratory of Materials and Traditional Historical Architectures) at the DICAAR of the University of Cagliari, he carries out research on issues related to architectural drawing, representation of territorial and urban reality, architectural and archaeological survey. Co-director of the series "Paesaggi imperfetti. Espressioni grafiche e modelli interpretativi" published by Aracne (Rome), he is a speaker at various national and international conferences with numerous scientific publications, including in the 2013 the monograph entitled *Le piazzeforti della Sardegna. Il disegno dei baluardi cinquecenteschi nell'opera dei fratelli Paleari Fratino*, in the 2015 the monograph - together with the geographer Giovanni Sistu- entitled *Paesaggi imperfetti. Il Di-Segno del paesaggio della Planargia Costiera (Sardegna Centro-Occidentale)* and in the 2021 the monograph *Leggere la diversità urbana. Espressioni grafiche e modelli interpretativi per la rappresentazione del paesaggio di Cagliari*.

Bartosz PODUBNY, Deputy of the Podkarpackie Voivodeship Conservator of Monuments in Przemyśl



Master of Art History; a graduate of the Institute of Art History at the Catholic University of Lublin (KUL); an employee of the Voivodeship Conservation Office in Przemyśl and National Heritage Institute; nowadays, holds a position of the Deputy Head of Conservation in the Podkarpackie Voivodeship. Within the framework of his PhD dissertation (supervised by Professor Lechosław Lameński), he is documenting artistic work of Ferdynand and Stanisław Majerski. He is the author of the publication "The Majerski Family for the Przemyśl Cathedral. The History of Restoration of the Przemyśl Latin Rite Cathedral against a Background of the Activity of Ferdynand and Stanisław Majerski" ("Majerscy dla katedry Przemyskiej. Historia restauracji katedry przemyskiej obrządku łacińskiego w kontekście działalności Ferdynanda i Stanisława Majerskich"), Przemyśl 2020. He is also the author of numerous articles, biograms and conference presentations connected with the Majerskis' artistic work, history and conservation of monuments. Additionally, Bartosz Podubny is active in the field of sepulchral art. He is the author or co-author of several dozen different elaborations concerning sights and monuments located in the Podkarpackie Voivodeship.

He participated in the research project "Corpus Vitrearum – Collection of Stained Glass Windows, Coverage 1800–1945, in Roman Catholic Churches of the Cracow and Przemyśl Ecclesiastical Provinces", which was carried out by the Institute of Art History at the Jagiellonian University in Cracow (UJ) within the scope of the National Programme of the Humanities Development, supervised by Wojciech Bałus, prof. dr hab.

Bartosz Podubny is currently preparing a documentation of the Dąbrowskis'-of-Żołyńia Collection (within the framework of the project of the Polonica Institute in collaboration with Katarzyna Chrudzimska-Uhera, dr hab., and Anna S. Czyż, dr hab., from the Institute of Art History (UKSW).

He is also a member of the Association of Art Historians. In 2020, by the decision of the Minister of Culture and National Heritage, Bartosz Podubny was appointed a member of the Łańcut Castle Council. He also participates in a similar advisory committee at the National Museum of the Przemysł Land.

Cettina SANTAGATI, University of Catania



She is associate professor at the Department of Civil Engineering and Architecture, University of Catania. She is part of the Laboratory of Architectural Photogrammetry and Survey "Luigi Andreozzi" and head of the Laboratory of Digital Surveying, Representation and Reconstruction at Museum of Representation, University of Catania. Her research interests are focused on: 3D acquisition and modelling, HBIM, Virtual Museums.

Krystyna SOLAREK, Warsaw University of Technology



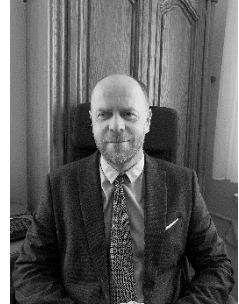
Krystyna Solarek is an architect, urban planner and researcher - professor of technical sciences. She combines research at the Faculty of Architecture at the Warsaw University of Technology with creativity in the field of urban design and spatial planning in the Studio of Architecture and Town Planning "SOL-AR".

She heads the Department of Town Planning and Spatial Management at the Faculty of Architecture of the Warsaw University of Technology; she is also the vice-dean of the Faculty of Architecture for Research and the chairwoman of the Scientific Council for Architecture and Town Planning at the Warsaw University of Technology. She is a member of the Architecture and Town Planning Committee of the Polish Academy of Sciences, different scientific committees and expert teams, competition committees, and a representative of the Warsaw University of Technology in the national Accessibility Council. For many years she has been working in the Society of Polish Town Planners, where she was a member of the Main Board for several years.

She is the leading designer of several dozen local plans and some general plans (studies of conditions and directions of spatial development) of communes, co-author of over 200 town planning studies, including conceptual works and competitions, several of which were awarded, the author of analyzes and expert opinions.

She deals with various aspects of contemporary city development, suburbanization processes, issues of urban greenery, universal design, accessibility of urban space and water management in the city. She is the author of several dozen publications, including monographs and new didactic programs, and the promoter of diploma theses awarded many times in national competitions.

Jan SZUSTER, Pirs Creative Lab, Warsaw



Engineer, constructor, entrepreneur. Born in 1967 in Warsaw. As a result of retinal pigmentary degeneration, which he was diagnosed with when he was a teenager, he started to lose his sight and now he is almost completely blind. He graduated from the Faculty of Electronics at the Warsaw University of Technology and from the Józef Elsner State Secondary Music School in organ class. Even before graduation, he was employed as an electronics designer at a company producing telecommunications equipment, and five years later he became the head of a design team which he headed for 15 years. In 2013, he founded his company Pirs Creative Lab, a 'research and implementation lab' that disseminates 'the latest technologies to the wider business community and to everyday life. He combines design experience with knowledge of the specifics of functioning without sight to create solutions that are very popular. The best known of these is the TOTUPOINT navigation and information system, designed to provide sound and description of public space, serving mainly, but not only, people with visual impairments. It is already functioning in over 1000 places in several dozen cities in Poland. It actively promotes work for people with disabilities. "A good employer knows that only a team creates an effective, efficient whole. If they find a person who has knowledge, skills and talent, disability will not be an obstacle" - he says. The progressive degradation of his vision has never discouraged him from physical activity, including skiing, mountain hiking, horse riding and windsurfing.

Edita VRÁBLOVÁ, The Faculty of Architecture STU, Institute of Architecture of Residential Buildings



She has been working at the Institute of the Residential buildings of the Faculty of Architecture STU in Bratislava since 2008. She devotes to the domain of the residential and public buildings architecture, with focus on the hotels and the student houses. She has remarkably contributed to the international research project Regiogoos (Slovakia – Austria) and had also joined the some local research grant projects. She is a co-author of a monograph published abroad, various scientific papers published in journals and scientific conferences digests. She devotes mainly to the residential buildings and temporary accommodation in her architectural practice. She was rewarded in architectural competitions: 1st prize in an architectural competition verified by the Slovak Chamber of Architects and received the nomination for the ARCH Prize in the 1st round. Many her projects and design works were released and presented at the several architectural exhibitions.

Debbie WHELAN, University of Lincoln



Debbie's work is transdisciplinary (architecture, socio-historical anthropology and history), focussed on KwaZulu-Natal. She is experienced in the development and heritage sectors and has taught at DUT, UKZN, and the University of Lincoln. She has compiled numerous Heritage Impact Assessments, and is considered a land expert in KwaZulu-Natal, having evaluated over 100 land claims for the State and private landowners. Her interests centre on architectural change and its impact on the built environment. This includes rural-urban movement, contemporary intangible heritage, and post-colonial societies. She also investigates historic infrastructure including electrification, civic-level buildings and water supply in colonial and post-colonial environments.

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ARCHITECTURE TECHNOLOGY AND HEALTH

The topics of the so far organised Symposia „Architecture and Technology for Health” have been concerned with the architectural, construction and urbanistic solutions decisive for the level of public health and quality of life.

Currently, during the times of the pandemic, public health and quality of life are gaining a whole new meaning. Health care facilities are finding it hard to cope with the situation and are failing to provide for the ever increasing needs, the society is becoming less physically active and has less contact with the external environment which is having a negative impact on the well-being and mental health of many people. Are the health care facilities able to effectively deal with the new needs and challenges? How can urban spaces (urbanistic issues), buildings (architectural issues) and technological solutions address the social and health-related challenges of today’s reality?

The aim of the conference is to identify the new design challenges related to urban spaces but also to health care and social care buildings, which, faced with the challenge of the pandemic, may have to be modified.

We suggest that the discussion during the next ATZ edition should focus on treating the pandemic as a starting point for improving the urbanistic and construction solutions and for working out a new and innovative approach taking into account new technologies in coping with the challenges to public health and quality of life.

The Symposium is addressed to scientists, city authorities, urbanists, architects, designers, psychologists, sociologists, doctors, representatives of regional and local health and social care centres, administrators of health and social care facilities, representatives of NGOs, students preparing their master’s theses and PhD dissertations for whom the subject of public health in relation to the new paradigm of health and social care is of key importance.

We would hereby like to invite you to submit papers related to the following topics:

- shaping public spaces in the pandemic and post-pandemic landscape versus the quality of the inhabitants’ lives;
- shaping health and social care facilities while keeping in mind the patient’s comfort and the significance of the healing environment during the times of the pandemic;
- the role of modern technology in shaping spatial solutions for public spaces as well as health and social care facilities.

We would like the conference to be a platform for exchanging various theoretical and practical experiences. We hope that it will help to implement solutions that increase the efficiency of health care facilities and improve the quality of space in patient zones.

Organizing committee:

Dr Eng. Arch. Iwona Benek

Dr hab. Eng. Arch. Katarzyna Ujma-Wąsowicz, Prof. of SUT

Iwona BENEK¹, Ewa LACH², Julia GIŻEWSKA, Żaklina OSMENDA, Wiktoria RUTKA, Olga SAPETA, Zuzanna WĘGLARZ

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USE OF VIRTUAL REALITY IN DIAGNOSIS AND DESIGN FOR OLDER PEOPLE WITH DEMENTIA

The problem of cognitive impairment is a growing phenomenon not only among older people. Current demographic forecasts predict an increase in life expectancy and a significant growth in the elderly population, which increases the number of people in the risk group for dementia. Technological development creates the opportunity for a more accurate diagnosis of elderly people in the early stages of dementia and for a better use and archiving of the obtained results enabling correct and early detection of the stages of dementia. From this point of view, virtual reality seems to be an extremely useful technology for the assessment of cognitive functions, as it allows simulation of real situations. On the other hand, it offers the possibility to test spatial solutions, which are an acknowledged factor that can support the quality of patient care and functioning. The application for mobile VR glasses, presenting the world from the perspective of 60+ people, was developed during the interdisciplinary cooperation between the Faculty of Automatic Control, Electronics and Computer Science and the Faculty of Architecture of the Silesian University of Technology. It provides the possibility to test spatial proposals related to design for the elderly in virtual space.

Natalia BURSIEWICZ*

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PUBLIC SPACE FOR HEALTH – ALTERNATIVE FORMS OF USE AND CREATIVE DIRECTIONS OF DEVELOPMENT

Concern for public health is one of the main priorities of European governments. The growing number of elderly people or people with reduced

mobility, together with the increasing health care crisis, forces us to verify many solutions in the area of social policy, urban planning and architecture. It also motivates to look for new possibilities of providing support to the mentioned groups through preventive, educational and therapeutic actions. The initiative of research and projects in this field receives considerable attention from scientists of various disciplines. This article, however, focuses on highlighting the potential hidden mainly in architectural history and physical culture. This interdisciplinary approach encourages us to look at the space of the historic city as a multidimensional device for psycho-physical exercise. Targeted walking tours in the historic part of the city combined with the activation of the senses, appropriately selected physical movements and an educational form may contribute to improving health, well-being and consequently the quality of life of many user groups. The study presented here may also change the perception of historic architecture and encourage the architectural and design community to reinterpret selected building elements and architectural details.

Agata GAWLAK*

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DESIGN FOR HEALTH AND WELL-BEING DIAGNOSING THE HOUSING NEEDS OF FUTURE SENIORS

This article presents the results of the research made on a sample of 2,000 of young respondents surveyed in the scope of their housing needs, in this their expectations as to the place of residence, form of residence and size of their living space.

The methodology assumed for the presentation of results of quantitative variables included such statistical measures as the arithmetic mean, standard deviation or quantity. Whereas, the quantitative variables have been presented via quantity and percentages. To assess the percentage difference between the analysed parameters, the author has used Pearson's chi-squared test, chi-squared test (maximum-likelihood), Cramér's V and the test for differences between two strata weights. Comparative analyses drawn up on the basis of the data show the tendencies in the housing preferences among young people, both in the short and long time perspective. The research was intended to diagnose the housing needs

of young people and to juxtapose their expectations with the tendencies. This way the studies can effectively help architects create solutions that properly meet the factual needs of the residents as well as improve the quality of designed housing for the future residents as architects will be able to better address the needs of the seniors to be.

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ARCHITECTURAL AND URBAN ISSUES OF DESIGNING THE SOCIAL SERVICES CENTERS ON SELECTED EXAMPLES

This article deals with the issue of Social Service Centers (CUS) as a new form of organizing support for local community residents on selected examples from around the world. The authors use a case study to analyze urban and architectural issues related to the design of social service centers in accordance with the modern approach and design standards. The result of the article is the formulation of design guidelines for the location, plot development, functional and spatial program, as well as common spaces for chosen types of CUSs. These guidelines may be a useful tool for creating CUSs in Poland in connection with the Act of July 19, 2019, on the provision of social services by the social services center (Journal of Laws 2019, item 1818).

Anna SZEWCZENKO¹, Iwona BENEK², Dominika BEDNARZ, Jakub BRODZIŃSKI, Wiktoria GRZECHNIK, Monika KĄDZIOŁKA, Dominika ŁUC, Nikola NOSZCZYŃSKA

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ROLE OF SOCIAL SPACES IN THE FACILITIES WITH CARE FUNCTION FOR PEOPLE WITH DEMENTIA SYNDROMS - POSTPANDEMIC PERSPECTIVE

The objective of the article is to describe the assessment criteria of the quality of social spaces in geriatric hospitals and in long-term care facilities in terms of the needs of patients suffering from dementia syndrom. The presented criteria are part of the developed tool for checking the functional and behavioral quality of the above-mentioned healthcare facilities in terms of the needs of patients with dementia syndrome. The tool was developed together with the students of the Faculty of Architecture of the Silesian University of Technology as part of its participation in the "Excellence Initiative - Research University" program. Discussion on the role of social spaces is of particular importance, especially due to the reduction of such spaces in the functional programs of the facilities and due to the need to implement appropriate solutions to prevent social isolation of patients in the age of pandemic threats. The paper uses a comparative analysis of the available qualitative assessment tools, which allowed for the identification of the most important categories of spatial quality in the above-mentioned facilities.

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DEVELOPMENT OF A HEALTH RESORT TO ACCOMMODATE FOR NEW TRENDS IN HOUSING ARRANGEMENTS FOR ELDERLY PEOPLE

Poland at present faces the process of society aging and current demographic forecasts confirm that this trend will be getting increasingly stronger in the coming years. Therefore, it is very important to implement processes aimed at adaptation of the public spaces in health resorts and sanatoria as well as the housing arrangements to the needs of elderly people so that in the future they could live freely and safely, while maintaining their autonomy.

In the second half of the previous century, an important part in the scientific and research process was the introduction of a new form of treatment consisting in post-hospital and specialist rehabilitation. The prophylactic activity, intended to prevent and defend against the onset and development of diseases, started to play an important role in the sanatorium and spa treatment.

In the article, the authors present two examples:

- 1) Development of an existing health resort with autonomic clusters of residence and safe interdisciplinary activity for senior people.
- 2) Pilot cluster solutions with medical procedures based on the concept for the “new health resort”—designing and construction based on modern ecologic renewable energy systems as a response to shifting and extending the age of human physical activity, determinant for the introduction of new strategies of architecture development for elderly people.



INTERDISCIPLINARY RESEARCH IN ARCHITECTURE

Smart Architecture

The environment and the pandemic are currently two of the most important topics that architecture has to face, to meet expectations, to adapt, to carry out radical changes, to be prepared for different scenarios of the future – this requires an architecture with a new look – Smart Architecture.

Thematic issues:

- Smart Ergonomics (including space ergonomics in the age of pandemics)
- Research, Art and Design in Public Space (research, examples, role and future of design)
- Space Architecture (among others, research into needs and behaviour during isolation)
- Virtual Reality in Architecture (alternatives in times of pandemics, simulations of changes)
- Climate and Environment Protection in Architecture (the future of architecture and the architecture of the future, a broader view beyond the pandemic)
- Smart City (new needs and problems of the contemporary inhabitant – accessibility, movement, safety, building local potential, co-determination, social bonds),

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THE SPACE OF THE “GEOSFERA” EDUCATION CENTER IN JAWORZNO AS A RESEARCH FIELD FOR STUDENTS OF THE FACULTY OF ARCHITECTURE OF THE SILESIAN UNIVERSITY OF TECHNOLOGY

The paper presents the methodological assumptions and an action plan for the study of open public space - the area of recreation and social integration of residents and closed public space - a facility intended for defined activities of various groups of users. The area of the “GEOsfera” Ecological and Geological Cooperation Center in Jaworzno was adopted as a research field for analyses and considerations - an area with recreational, educational and integration functions, with high natural and landscape values, constituting a place of education for organized groups of children and adolescents, and a research station for students and scientists of different disciplines.

The overriding problem of the considerations is the issue of the proper shaping of the built environment, understood as an urbanized space with a clear spatial layout, high quality and a modern standard of use. This paper presents the methodology of research leading to the development of guidelines, which should constitute the basic element of pre-design studies in the modernization of public spaces, allowing not only their technical modernization, but also adaptation to new civilization needs and current legislative requirements.

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CONVOLUTIONAL NEURAL NETWORKS AS CONTEXT-SCRAPING TOOLS IN ARCHITECTURE AND URBAN PLANNING

“Data scraping” is a term usually used in Web browsing to refer to the automated process of data extraction from websites or interfaces designed for

human-use. Currently, nearly two thirds of Net traffic are generated by bots rather than humans. Similarly, Deep Convolutional Neural Networks (CNNs) can be used as artificial agents scraping cities for relevant contexts. The convolutional filters used in CNNs make them very promising candidates for feature-detection in the abundant and easily accessible smart-city data consisting of GIS and BIM models, as well as satellite imagery and sensory outputs. These new, convolutional city-users could roam the abstract, digitized spaces of our cities to provide insight into the architectural and urban contexts relevant to design and management processes. This article presents the results of a query of the state-of-the-art applications of Convolutional Neural Networks as architectural “city-scrapers” and proposes a new, experimental framework for utilization of CNNs in context-scraping in urban scale.

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ANALOG SPACE HABITATS - RESEARCH AND OWN CONCEPT

Research on analog habitats enables the achievement of a fully functioning, independent environment in the future, which will certainly have a positive impact on both space exploration and the improvement of the quality of life on Earth in accordance with the goals of sustainable and responsible development. These are solutions such as a circular economy, the use of raw materials available on-site, the need to monitor all resources, combining architecture, nature, and technology in a coherent and harmonious manner, and many others. The article concerns the research and the developed concept of an analog space habitat made as part of the Master's thesis (author: Wiktoria Dziadula, supervisor: Prof. of SUT, Klaudiusz Fross, Silesian University of Technology, Faculty of Architecture, academic year 2020/21). The article presents the scope of the research carried out on simulation space facilities, conclusions from literature and from in-situ research, and an original proposal of a self-sufficient, analog underwater habitat using of e.g. solutions from space stations and submarines.

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QUALITATIVE RESEARCH IN THE LUNARES SPACE HABITAT

The article concerns the qualitative research carried out in January 2021 in the LunAres Research Station. The qualitative research in the LunAres habitat during the PANDA mission has been developed by the architect, analog astronaut Wiktoria Dziadula, as part of the work of BK (Faculty of Architecture of the Silesian University of Technology, in the Rar5 Department) under the supervision of Prof. of SUT, Klaudiusz Fross. Qualitative research was an expert assessment of the facility in qualitative categories: technical, functional, organizational, economic, and behavioral. It is worth emphasizing that these were pioneering studies of the qualitative assessment of the space habitat by architects. The research was conducted in parallel with the space mission. The research results constitute an interesting resource for the design of a space habitat.

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THE PANDA SPACE PROGRAM IN THE LUNARES HABITAT - RESEARCH ON NEEDS AND BEHAVIOR DURING ISOLATION

Isolation in the confined space of a research station and isolation during forced quarantine have a lot in common. The article concerns the research that was carried out in the analog space habitat LunAres in Piła, January 2021. The main purpose of this simulated mission was to study the effects of isolation on mental and physical

health. The article presents the details of the analog mission, the scope of research and preliminary conclusions, good practices resulting from own observations, and analyzes the needs and behaviors during isolation.

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BLACK IN ARCHITECTURE AND THE ENVIRONMENT BUILT IN THE ASPECT OF SUSTAINABLE DEVELOPMENT

The article presents the results of research related to architectural design and the use of dark colors in open spaces. It is an attempt to draw attention to the current trends in architecture that deviate from the doctrine of sustainable development. Concern for climate change recommends shaping the built environment so as to provide the best conditions for people living in it now and in the future. Conducting environmental studies related to the assessment of the reflectance of building materials in the built space, examples of façade cladding, roofing and pavements of communication routes not complying with these rules were collected.

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IMPLEMENTATION OF THE FUNCTION OF WORK AND HOUSING DURING PANDEMIC OF COVID-19

The article is based on a survey conducted among students of the Faculty of Architecture of the Silesian University of Technology in Gliwice. The survey discussed such factors as preparing a place for work and rest at home, as well as moving and organizing remote work at the university. The results of the research may be helpful for the organization of the home office and university learning

during the pandemic or in the future for e-learning. They also provoke reflection on social relations.

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BIM - THE CONCEPT OF ONE MODEL AND THE IMPLEMENTATION MODEL

This article describes the concept of a three-dimensional computer model of an architectural structure erected by means of the Building Information Modelling, the BIM method. Moreover, the notion of a multi-dimensional design environment, the BIM, which allows the possibility of recording within a three-dimensional model non-geometric information was presented. Furthermore, it also provides a description of the various levels of the BIM implementation. The study has used the analysis of the state of knowledge related to the BIM method.

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BIM AS A DRIVER OF CHANGES IN ARCHITECTURAL DESIGN

The article describes Building Information Modelling as a key method in improving the efficiency in the building sector, thus becoming an important driver of changes in architectural design. It also presents the position at the moment of BIM introduction, both in Poland and worldwide, and it also provides answers to the question of what BIM is in this day and age. Moreover, this study utilizes the analysis of the current state of the knowledge related to the BIM method.

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ENERGY CONSUMPTION IN BUILDINGS: THE EXPERIENCE OF THE GREAT BRITAIN, THE LONDON CITY HALL - A CASE STUDY

This article elaborates on the issue of energy consumption within buildings, as well as examines problematic attempts made to reduce it. Experiences from Great Britain were described, focused on the period of when specific regulations came into life, requiring that users of public buildings make a public display of Energy Certificates of the buildings. Moreover, the article examines the case of the City Hall in London, designed by Foster and Partners, the architectural design studio. At the moment of its designing and putting to use, the said structure was advertised as “a virtually non-polluting public building”. In truth, it hardly fits into the average category of all the buildings analyzed. This study utilizes the analysis of the current state of the knowledge related to the buildings characterized as low energy buildings.

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RESIDENTIAL SATISFACTION IN MULTIFAMILY ESTATES OF MASS HOUSING ERA

The infrastructure and buildings of housing estates need to be maintained to stay operational as well as modified to answer current needs of the inhabitants. To set goals of the estate maintenance and development, the estate management is expected not only to monitor the technical condition of the assets to undertake necessary repairs, but also to plan improvements. The author investigates the residents point of view on the development of a particular housing estate in Lublin using face-to-face interviews. The questions concerned accessibility, deficiencies in local amenities, the condition of the estate’s infrastructure, buildings and flats, and opinions on priorities of improvement measures. The survey results are intended as input for planning the modernization of the estate.

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PV PANEL SETTINGS USING SIMULATION OPTIMIZATION - „CLIMATESTUDIO” BY SOLEMMA

This paper describes a case study of PV system selection for a dwelling building and optimization of panel placement on a flat roof using generative design and genetic optimization tools. The purpose of the simulations was to demonstrate the suitability of the selected tool for the analysis of the variables of the designed system in relation to the energy demand defined by the presence and activities of the facility users.

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COMMON SPACE IN CONTEMPORARY BUILDINGS OF PRIMARY SCHOOLS IN POLAND. CASE STUDIES IN QUALITATIVE RESEARCH

The article is concerned with the designing as well as architectural and spatial issues of the contemporary buildings of primary schools in Poland. It refers to the design and architecture of common spaces in school buildings, which is illustrated by the examples of entrance zones and hall/corridor zones. The main objective of the undertaken research was the analysis of the areas available to everyone, defined as common spaces, which serve the purpose of educational tasks, after-school activities as well as social interaction and integration. The analysis encompasses the ways of formation of common spaces, functional and spatial solutions as well as arrangement and architectural issues.

To enable proper performance of the tasks the institution of school is entrusted with, it is necessary to optimally shape the space of the school building to support the educational and upbringing processes in the best possible way. The most important organizational unit of the educational space of school is a classroom. The classrooms form a part of the functional-spatial system of the

building and are combined with common spaces which are available to all users. First of all, common spaces play a role of internal circulation routes, which link the educational zone of classrooms with other spaces of the school building. In addition, they are spaces frequented by pupils during breaks and after-school activities.

In order to draw attention to the currently changing approach to the creation of the architecture of school buildings, the authors chose three primary schools built in the 21st century in Poland. In-situ investigations were carried out and then supplemented with the analysis of the current state of studies on grounds of selected literature and scientific publications as well as design documentation of the studied school objects. The research aimed to analyze and assess architectural solutions applied to contemporary school buildings taking into account functional and spatial systems with special focus on common spaces.

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DOCUMENTATION AND INVENTORY, RESTORATION AND PRESERVATION OF THE HISTORIC CEMETERIES OF GALICIA – PROBLEMS OF CHOICE

Historic cemeteries are an integral part of the cultural landscape of any city or town, a valuable source of information about the history and traditions of the local population. In many settlements of Galicia, have been preserved the cemeteries, which we now call historic. Such cemeteries are part of the cultural heritage of Galicia and are already monuments today. They are of interest to researchers and admirers of history, architecture and art. Places of interest include objects with ancient history, interesting architectural elements and highly artistic memorial sculptures, as well as the presence of graves or tombs of famous people. Historic cemeteries serve as objects of necropolis tourism and a component of nostalgic tourism routes.

When we talk about cultural heritage, the main goal is its protection and preservation. When we talk about the preservation of such an object as a historic cemetery, the question of preserving the physical substance of the monument arises. And this is already a task of restoration, which in turn raises many questions. In particular, the choice of objects, methods and techniques, philosophy of restoration, etc. It is not for nothing that the first step in restoration is a detailed

study of the object of restoration, which helps to find answers to these questions. The results of such a study are comprehensive documentation of the object, and one of the tools is its inventory by filling out an inventory card.

In the process of researching the historical cemeteries of Galicia, an inventory map of the tombstone was compiled, improved and tested. It is already clear that one of the most powerful and valuable elements of the current card is digital photo capture of monuments. It is also obvious that in the digital world it is worth looking for further development of fixing the existing state of the monument. Primarily its appearance is like 3-D fixation. And this direction needs to be developed.

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COMPATIBLE ARCHITECTURE

The article is an introduction into the area of compatibility, a phenomenon that has occurred several times in the history of architecture, however, it never reached a satisfactory conclusion or form. The author is looking at this problem by examining both Palladio's accomplishments and the experiences of Frank Lloyd Wright. It is a search for solutions not as much in the area of aesthetics as in the methodology of design. This dilemma is open and ever-changing which gives a chance for a new perspective.

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DESIGNING THE NON-EXISTENT - FROM THE CREDIBILITY OF VIRTUAL SPACE TO THE MATERIALIZATION OF ELEMENTS IN VIDEO GAME WORLDS

The creators and designers of virtual worlds, those being interactive spaces inhabited by users, are referred as architects, like the main creator of the iconic Matrix. The architecture of virtual worlds itself, like the real world, combines

beauty, function, replacing permanence, if we refer to the perception of architecture through the Vitruvian triad, with credibility. This perception of one of the place-shaping elements also changes the design approach, the main one in terms of storytelling, because credibility has precisely this connotation of meaning in this case. The paper will attempt to outline not so much the design process of virtual worlds but the issue of the narrativity of space because of its credibility. The author will define the concept of credibility of virtual worlds as a utility function in the technological, cultural and social dimensions. Theoretical considerations will be supported by the implementation of the proposed methodology into the design process and an exemplary materialization of the elements of the virtual world of Steam Rifts, going beyond the digital environment in order to authenticate it.

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DIGITIZATION OF THE REAL WORLD FOR THE PURPOSES OF CREATING VIRTUAL REALITY IN ARCHITECTURE

In this article, the author will try to answer the question of how to best reproduce an element of the real world, for example, a building or small architecture, and an architectural detail of the Architectural Department in Gliwice, real in terms of quality, and its representation in the virtual world as a 3D model. There will also be a comparison of the execution of the building model in relation to the methods used so far by students of the Faculty of Architecture as part of the Architecture and Lighting Faculty. This is to improve the quality of the concept and to create a methodology for creating models to illuminate them in a virtual built environment. Applications and devices will be used for comparison by the author.

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REMOTE WORK AND THE PROBLEM OF ERGONOMICS IN HOME OFFICES

The research was based on a questionnaire - a short opinion survey on: The ergonomics of remote workstations at home (the so-called home offices) for various groups of users. The obtained results are for architects, scientists and students of architecture to develop guidelines and recommendations: How should a remote workstation at home be properly arranged so that it does not lead to the loss of physical and mental health of users (and household members)? Where should remote workstations be arranged within the residential tissue? And will the enforced necessity to work remotely due to the pandemic affect the standards of residential space design in the future and how? These studies are under the patronage of the Silesian Branch of Polish Ergonomic Society.

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ARCHITECTURE OF ROOFTOP GARDENS, AS A NEW DIMENSION OF PUBLIC SPACE IN LONDON. CASE STUDIES IN QUALITATIVE RESEARCH

This article focuses on rooftop gardens as a widely accessible space located on the rooftops of public buildings. Rooftop garden is a type of space which takes up a considerable surface on the rooftops of buildings, such as office towers, hotels, shopping malls, and serves the purpose of public space available to everyone. This relatively new public utility space arouses visitors' interest, which is shown in the Authors' research. This article presents a method and results of the research conducted in three rooftop gardens in London. The investigations were concerned with: way of use, site attractiveness, maintenance and popularity level of each site in relation to the others.

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GARDEN ROOFTOPS ARCHITECTURE. QUALITATIVE RESEARCH OF SKY GARDEN IN LONDON

The subject of this research is a rooftop garden as a public space located on public utility buildings. Rooftop garden is a new type of space which takes up a considerable surface on the rooftops of buildings, such as office towers, hotels, shopping malls, and serves the purpose of public space available to everyone. This relatively new public utility space arouses visitors' interest, which is shown in the Authors' research. This kind of space enjoys growing popularity as it is attractive and innovative as well as offers beautiful views of the city panorama. Green roofs significantly improve natural environment conditions in the highly urbanized environment of cities, increase attractiveness of architectural objects and constitute an interesting alternative to traditional recreational spaces. This article presents a method and results of the research conducted in The Sky Garden in London. The investigations were concerned with: attractiveness and aesthetic value of the place, functional solutions, accessibility aspects and the level of popularity of the place among its users.



DESIGN + ART + SCIENCE

The main topic of the panel sessions held under the joint title of “design+art+science” are research activities exploring and integrating artistic projects in architectural space. For centuries, architecture has been analyzed in the context of beauty, proportion, harmony, but also as a place for purely artistic and design activities. This subject should still be discussed in relation to the utilitarian factors related to construction, as well as in relation to contemporary design and social ideas and economic conditions.

In the postmodern world dominated by technology, the encounter with art takes place not only in a gallery or museum, but simply on the street. In many cities, murals are created that enrich the urban space, but also give a chance to interact with art to the general public, which was the goal of the precursors of the contemporary street-art trend: Banksy, Basquiat, Fairey. As cultural development progresses, works of art gradually complement traditional city features such as streets, quarters and squares. The building is a place of installation of contemporary, designer details, building materials and interior design elements, but it can also turn out to be an iconic image of design art, such as objects by Zaha Hadid and similar artists.

In the face of contemporary climate and environmental problems, design and artistic activities related to an ecological approach are extremely desirable – by using partially worn out and no longer useful elements of the built environment: building materials, finishing materials, elements of building equipment. The creative aspect, treating these elements as a resource, and not as waste, may be a response not only to the problems of environmental pollution, but also support economic goals.

The coexistence and mutual interactions that occur between architecture and art should also concern the issue related to didactics understood not only as teaching future designers the principles of shaping the built environment, but also preparing the general public for contemporary design and a new image of the city. That this message becomes understandable and acceptable.

In view of the issues described, questions arise that we will seek answers to during panel sessions:

- How do we perceive art and modern design in urban space?
- What are the new trends in art and architectural design?
- What is creativity and design thinking?

- Architecture and art / science and education – how to educate, whom and what for?
- Ecologically intelligent city – what is it, how to achieve this goal?

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THE CREATIVITY OF VENETIAN ARCHITECTURE AND DESIGN IN THE 20TH CENTURY

Venetian architecture in the 20th century is an original phenomenon in the art of shaping a space and continuing the centuries-old tradition of influence of the center, located on the lagoon, on other centers of Europe. The original projects were developed by outstanding Italian architects and world-famous artists — the winners of international architectural competitions also invited to Venice. The outstanding avant-garde solutions exceeding the limits of standard perception of the principles of shaping space were not realized due to (unjustified) fear of infringing the unique character of the city.

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BIOPHILIC DESIGN – A REMEDY FOR THE CHALLENGES OF THE MODERN WORLD?

Humanity, despite its original, deep rooting in nature, has the ability to create in a highly urbanized environment, filled with synthetic materials and artifacts. This strongly "enclosed" environment can become both a creative stimulus and a destructive obstacle. The rush of life, everyday struggles and omnipresent consumerism are accompanied by the notorious regret over the pace of the passing time. The events of 2020 "stopped the world" for a while, but did they cause the expected reflection on the real needs of our lives? The fact is that humanity loses its natural ties with nature, hence it seems beneficial to popularize the idea of biophilic design, which emphasizes the benefits of the unique relationship between humans and nature. Nature's relationship with human performance, productivity and well-being is very strong, and above all, it affects creativity and an open mind.

The aim of the article is to present the ideas and principles of biophilic design in the modern world, which is an interesting alternative to the universal pursuit of innovation. The author makes a comparative analysis of selected architectural objects and interior solutions designed in the spirit of biophilic design. The final conclusion of the considerations is the hypothesis that the 21st century brings the necessity to extend Vitruvius' triad with another rule: "coexistence with nature".

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MURALS AS A TOOL FOR SPATIAL AND IDEOLOGICAL ACTIVITIES IN THE ARCHITECTURAL AND URBAN ENVIRONMENT – SELECTED EXAMPLES

The aim of the paper is to present contemporary murals divided into the technique in which they were made, form and ideological message, as well as to determine their role in the space in which they were created. The methods that were used to conduct the research are: literature analyses, the Author's own observations, in situ research as well as analyses obtained as part of the author's seminar Fine Arts in Public Space.

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CONCRETE ARCHITECTURE WORKSHOPS FOR STUDENTS AS A WAY TO PROJECT-BASED LEARNING

The author tries to describe a modification of the teaching approach during workshops conducted at the Faculty of Architecture at Cracow University of Technology. One of the reasons for the change was to enhance the quality of education. While developing projects, students usually use theoretical knowledge found in books and copy designs from architects. A lack of realism or understanding of concrete technology has been noticed. The change in the organisation of the

workshops described in the article consisted in introducing project realisation as the successive stage in teaching. The students were to make a concrete throne. The primary objective was the transition from theoretical to practical teaching. The change forced the participants to take a different, more creative approach to designing a small architectural work and to use a specific material. The transformation of the theme enabled them to acquire new skills other than those in paper-based academic works.

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STREET ART AND ART STREET DESIGN URBAN CONCEPT: IN SEARCH OF A NEW PLACE FOR ART IN THE CITY SPACE

The aim of this article is to discuss the presence of contemporary art in public spaces in cities and the related dilemmas of both social, functional, spatial, and economic nature. According to the authors, between the two main movements of urban art like street art and the still developing art street design urban concept, there is still room for a third path – intermedia animation involving the user directly when he or she uses the urban space.

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STUDENT COMPETITION SUPPORTED BY LECTURES FROM CONCRETE TECHNOLOGY EXPERTS AS A MULTI-FACETED TEACHING METHOD

The paper aims to present a teaching method introduced in the design task for second-year undergraduate students in the Department of Architectural Composition at Cracow University of Technology in the form of a competition entitled ‘Concrete Architecture – Play of Solids – House in the Landscape’ co-

organised with the Association of Cement Producers. Over the years of the competition, it has been noticed that aspects related to the matter and technology of concrete pose a great difficulty to the students. To equip students with the tools to understand concrete architecture, lectures given by experts in concrete technology and contracting have been organised to familiarise them with actual issues related to architectural concrete technology, both in purely theoretical and primarily practical terms. The method introduced has resulted in higher student awareness of this technology, an increase in the technical level of competition entries and a creative approach to designing concrete matter.

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THE REESTHETICS OF FUNERAL DESIGN IN DESIGN SPACES

The paper deals with the issues of design, interior architecture and spaces where the topic of funeral design is marginalized. The role of aesthetic education should be emphasized not only at the academic level, but also in the broadly understood social scope. The subject of funeral aesthetics has been deprecated and tabooed over the years. This is directly related to the lack of consent to mourning. The omnipresent kitsch flooding the market related to the funeral industry and the lack of awareness of the recipients prompted to conduct research in this field and indicate possible solutions that may become a pretext for further design searches. The context of the interior in which we experience difficult moments in relation to the environment and the design of elements closely related to this issue has a significant impact on our psychophysiology of sensations. A well-designed space can significantly minimize stress without increasing the feeling of loss and confusion. The research is based on their own design activities in funeral spaces and on the conceptual projects of students of the Faculty of Architecture implementing a program in the field of interior design.

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THE CITY - A CREATIVE SPACE / SELECTED CASES

The city space is an area for articulation in the field of art and architecture, implying the creation of places of special importance to residents and creating a multi-level system of place identification. The aim of the article is to draw attention to the role of artistic activities that deepen social sensitivity and identity, also in the marketing and economic aspect, based on the example of the city of Poznań. The whole discussion was set within the observational, heuristic method and a case study, confirming that urban space is a creative space.

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BIONIC PATTERNS IN THE SEARCH OF ANALYTICAL MODELS FOR BUILDING STRUCTURAL FORMS OF EFEMERIC OBJECTS

Architecture is a science, which is evident in the change in design. Natural modelling processes characterise the 21st century, and bionics become an inspiration in the creative search for contemporary architecture. Experimental modelling and algorithms to describe structures and evolutionary processes make it possible to optimise materials, like minimising the use of building materials in Nature. Integrating architecture with biology or material engineering in objects with homogeneous functions allows for supporting structures and digital fabrication efficiency. This paper presents results from the conducted, selected research, implementing biomorphic algorithms for searching optimal rod structures in the architecture of temporary pavilion objects. The article aims to identify contemporary technological inspirations for the art of form-finding in the logic of imitation of forms visible in Nature.

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PERCEPTION OF THE MURALS AND THEIR IMPACT ON THE ENVIRONMENT, PART I

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PERCEPTION OF THE MURALS AND THEIR IMPACT ON THE ENVIRONMENT, PART II

In recent years, we can observe a significant number of murals appearing in the space of Polish cities. They are important for the image of the city because, as a kind of plastic art, they fit into the mainstream of street art. They are usually large-format wall paintings and as such have a huge impact on the perception of the space in which they are located.

Not only the visual side of the mural is important, but also the message it carries. Street performers very often take the floor on important social issues and political. Their works are an original statement on a specific topic, so the views expressed in them, reaching many recipients, may constitute the nucleus of a broad public discourse. The importance of these activities for the space in which they are created is crucial, for its reception and functioning.

Research was conducted in the form of questionnaires containing closed questions and open. Differences in perception of the mural and their impact on the environment were investigated depending on the sex and frequency of being in the vicinity of the examined painting. The aim of the study was to determine the attractiveness of the mural in the urban space depending on, among others the frequency of staying in its surroundings. The article discusses the results of research

on the perception of selected murals on recipients. The research was conducted as part of the subject of Psychophysiology of Vision in the academic year 2020/2021.

The information obtained may be a pretext for further research on the quality of human life environment and the reception of murals in space.



NATURE – ARCHITECTURE – CULTURE

Panel I: NATURE-ARCHITECTURE-CULTURE WITH POCOVID SYNDROME

The conclusions of the 1st edition of the International Nature-Architecture-Culture Conference include:

The notions such as more, higher, more expensive, extreme, provocative can not be the criteria for progress in architecture. Some contemporary reinterpretations of archaic synonyms of ideal architecture like moderation, balance, and appropriateness may constitute an alternative for them. The radical attitude of the architectural creativity motivated in this way is to stop the greedy development of the natural and cultural environment. The irreversible effects of the building impetus must be balanced by deliberate failure to build.

The postulates expressed in the statement – from 2019 – are read currently with the experience of covid-19 pandemic. Undoubtedly, the postcovid syndrome verifies the human-environment-human relationship. Already today, it stimulates paradoxical phenomena in the field of architecture and urban planning on a global scale:

- our apartments have become multifunctional environments: educational activity, professional work, artistic creations, cultural experiences, recreation and rest,
- Currently pandemic vacancies are: modern office buildings, university campuses, schools, shopping malls, concert halls, museums, sports facilities, airports, religious complexes,
- the return to full functionality of public spaces and architectural objects embedded in them is conditioned by ensuring standards that protect against the uncontrolled spread of infections ...

Will pocovid syndrome irreversibly change the criteria of shaping the built environment?

Will the ongoing revaluation permanently modify the living conditions in architecture? Perhaps, after overcoming the pandemic threats, we will restore the “normal” state from before 2020 – thus we will miss the chance to “heal” the human-environment-human relationship?

The timeliness of these questions prompted the organizers of the 2nd edition of the Nature-Architecture-Culture Conference to make it a forum for specifying answers to them.

Panel II: DIGITAL HERITAGE

The use of digital techniques and tools in the conservation of historical buildings and the examination of urban layouts has become a common practice. The scope and technological skills in this research are developing very fast, opening promising new perspectives in the field of heritage conservation.

Diagnostic techniques and tools used in the conservation process are constantly being improved, and digitization methods and the spatial representation of facilities are becoming a standard form of documentation. Digital data obtained in this way can be implemented to BIM or H-BIM technology but also to educational activities and popularization.

Within the conference we would like to present and trigger discussion on the following issues:

- Results and conclusions of current digital examination in the conservation process
- Heritage digitization and different forms of using this in practice – from documentation to education and tourism
- New approaches in conservation theory using digital tools

We will try to ask if digital heritage representation is becoming a new form of facilities preservation while the objects themselves are transformed or destroyed.

Therefore, we will try to look at the phenomenon of digitization of heritage as a process which, like many contemporary civilization phenomena, on the one hand is perceived in terms of a spectacular success, and on the other hand can be disturbing and a cause for reflection.

Organizing committee:

Prof. Dr hab. Eng. Arch. Jan Rabiej

Prof. Dr hab. Eng. Arch. Magdalena Żmudzińska-Nowak

Dr Eng. Arch. Joanna Biedrońska

Dr Eng. Arch. Anna Sulimowska-Ociepka

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SYNCHRONIC REPRESENTATION OF SPACES AS A WAY TO UNDERSTANDING THEIR DIACHRONIC EVOLUTION

Purpose: The act of dwelling is temporally linked to the present time. The experience, the representation and the narration of a place often go beyond the limit of the present time: the perceived reality is subjected to the constant modification of forms and spaces and the evolution of uses and activities carried out in them. These changes become part of our experience, often in a totally unconscious way. Drawing as narration and sequential art allow us to ring together different moments, distant in time but linked to the same site.

Methods: The representation of space in comic strip form reveals an unusual visualization of urban environment responding to specific needs of representation that find little space in coded technical drawing or in sketches. Architecture adopts new tricks and stratagems to broaden its audience.

Further interpretative openings arise when the linearity of the narration is abandoned in a "game" of rebounds between present, past and future; in this way the cause-effect condition of the changes is removed, giving the "reader" a greater freedom.

An emblematic example is *Here* (2014) by Richard McGuire, in which space passes in a few pages from the background of events to the protagonist; the story, in its non-linear evolution, almost loses its importance, the reader is forced to jump between the pages, reread some or browse others quickly. The non-story is a pretext for letting the reader experience space and its mutations.

Conclusion: The contribution presented aims to explore these mechanics by transposing them outside the pages of a comic and bringing them into a three-dimensional virtual environment. The user is offered the opportunity to move in a reproduction of a real space, in its current configuration, within which he can interact with temporal windows and see, immersed in the present, the same place but in the past. The user can know the space in which he is immersed and its changes, going beyond the fixed point of view of a 2D cartoon.

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IMMERSIVE REALITY FOR HISTORICAL LANDSCAPES: ARCHITECTURE IN A MONUMENTAL PARK

The theme deals with the survey and subsequent modeling and assembly for a virtual fruition of a complex of farmhouses located in the park of the Royal Palace of Monza. The Park that includes the Royal Palace is the largest enclosed urban park in Europe and is the result of a dual project: on the one hand a reconstruction according to the canons of English romanticism of the gardens behind the palace made by Piermarini, on the other hand the sewing and the enhancement of former agricultural estates brought to the dignity of urban park with a series of studied interventions by Canonica.

The Park represents a unique place of integration between historical architecture, neoclassical farmhouses of recognized testimonial value, and the natural landscape that has been designed around them. After a first phase of survey in place the experiment has grown with the aim of recreating the same magic even if far from it.

The survey represented a large part of the work: the site with several sessions of visual survey, photographic and measured by digital instrumentation. Then different workflows have been explored to evaluate the best immersiveness of the natural scene. Virtual reconstructions realized within the unreal search engine, holographic navigation mediated by holographic projections, augmented reality fruition through specific visors have been experimented.

The result is the attempt to recreate a vast space with different tools, considering strengths and weaknesses of both and where the fruition can emotion as much as reality and where the virtual visit can be the bearer of stories and contents difficult to share if not with a visit in place.

The hypothesis made deals with the transmission of wide places and spaces to future generations in the presence of places that climate change is likely to put in danger.

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DIGITAL TOOLS APPLIED TO CULTURAL HERITAGE OF THE MODERNIST RESIDENTIAL ARCHITECTURE OF THE SECOND HALF OF 20TH CENTURY. CASE STUDY OF GENERAL JERZY ZIĘTEK'S VILLA IN USTROŃ, POLAND

This paper will describe in detail the activities carry out and the methodology followed to document an existing structure of high cultural value and generate its digital 3D model by combining novel techniques as UAV photogrammetry and BIM and by leveraging additional information derived by common representation methods such as architectural designs. The results will contribute to a deeper understanding of how challenging methods of data acquisition and digital representation can go cost-effective documentation, storage and study of an existing building unit. As an example of a building that has been examined with the use of digital tools is a modernist villa from the 1960s in Ustroń, designed for General Jerzy Ziętek, a former Silesian governor and dignitary. This research stemmed from a problem faced by the current building owner in terms of potential future renovation of the building. There is a lack of its accurate, systematic documentation, which would become the basis for a conservation project. The research presented in this paper is a response to this problem which results in the development of a precise inventory documentation and representation of the investigated object, which is a valuable heritage of post-war modernism architecture.

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H-BIM RECONSTRUCTION THROUGH TREATISES OF CLASSICAL ARCHITECTURE AND ANNOTATED DIGITAL HERITAGE DATA

This work proposes a semi-automated procedure for the reconstruction of Heritage-Building Information Models starting from annotated 3D survey data. A semantically segmented point cloud, obtained as a result of the application of Artificial Intelligence techniques for the classification of architectural typologies, is considered for the reconstruction of a HBIM model. The recourse to architectural treatises, as well as the use of visual programming languages, allow deriving and propagating 3D shapes, to model significant settings of the Pisa Charterhouse.

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DIGITAL TECHNOLOGIES IN DOCUMENTING AND CONSERVING MODERN ARCHITECTURAL HERITAGE

The conservation and transferring cultural heritage to future generations have been facilitated by the increasing development of digital modeling and architectural visualization software. With the help of a virtual environment, heritage data can be archived more permanently and accessed by numerous users. This paper aims to put forward how heritage from a certain period can be documented, analyzed and transferred using different digital techniques. Additionally, it claims that as a method, digital documentation is a practice that also contributes to different areas including culture, education and tourism. As a part of an ongoing scientific research project, apartments representing the period of modernism were studied. Within the scope of this paper, Karşıyaka, İzmir was selected as the area where the digital documentation method was applied and Çağlayan Apartment was chosen as the sample building. The methodology of the research comprises the following steps: literature review, on-site observation,

identification of the period, area and specific case(s), photo shooting, having measured drawings, archive scanning, oral history studies, 2D architectural drawings in CAD medium, 3D modeling, illustration and poster preparation. In conclusion, digital documentation has a direct impact on cultural sustainability, educational activities and touristic popularity. Through digital documentation, cultural sustainability is provided by highlighting the urban and societal memory. Oral history studies enable us to learn about daily practices in addition to tangible data. While searching for archival data about architects and designers, original drawings and digitization of the documents ensure the continuity of the historical process of conventional drawing techniques. Applying this method in the field of education provides an opportunity for students to conduct a better analysis through learning-by-doing, improving their research skills and being informed about urban memory. From touristic popularity, digital documentation creates an attraction point in the areas which represent the significant characteristics of urban culture.

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USING 3D SCANNING IN THE PROTECTION OF INDUSTRIAL HERITAGE

This article aims to discuss the use of specialist 3D scanning equipment in the preservation and stocktaking of post-industrial heritage in Upper Silesia. The heritage of Upper Silesia is to a large extent the result of the development of industry and technology. There is the greatest number of historical industrial facilities in Poland. They form an integral part of the cultural heritage of the region, at the same time determining its nature. These are primarily facilities associated with the tradition of mining, metallurgy, power engineering, railway engineering, communication and water production. The Coal Mining Museum in Zabrze, the collections which consist mainly of facilities (tools, equipment) belonging to the sphere of technology and industry, is looking for technological solutions appropriate for the popularisation of post-industrial heritage. The mining galleries, which were once used for mining works and extracting output, have been deteriorating over the years, either due to their closure or as a result of many years of negligence and lack of sufficient funds to maintain the extensive engineering infrastructure. Scanning, digital stocktaking and the presentation of the scanning

results on a specially prepared platform for displaying the collections is a rescue against their further degradation.

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EMPTINESS AND COMPLETENESS OF ARCHITECTURE

The new is often the old, yet well-forgotten.

The notion of space in which objects are placed has become a fixture of architecture since the Renaissance: the world is placed in space. Today, teaching architecture is an ability to fill space. This is why after the Renaissance cities were filled with large swaths of alleyways, walkways, boulevards and defilade squares, which were later flooded by waves of cars that conquered the new spaces. These were societies of absolutism. Empires and their capitals. Since that time, society often underwent dramatic transitions, along with changes in understanding values, especially those concerning man, and with them, space. The world, just like humanity, is attained in a multidimensional, multi-aspect, energetic approach, in an ever-shrinking space for development. Space ceases to be uniform, even, careless and tensionless. Quite the contrary—space reflects the tension in the society that forms space—each time it is its own space, a different space. Every period creates its own space. Synergy mistakes elements and components. Energy casts the most precious resources into the furnace of progress. To learn to understand this space—is the architect’s task.

The frivolity that causes emptiness is especially visible in religious architecture. The presence of a formlessness that causes a void is often particularly evident in sacred architecture. And the formlessness of the form (which induces the content) causes the meaninglessness of the content. The form is so self-sufficient that regardless of what happens in it, it can independently give space content and meaning. The form—which represents the body—has its tension and energy. The senseless use of certain forms misidentifies space and introduces people into a world of misunderstandings. The snobbery of an artist cannot justify their incompetent lack of sense in space and its meanings.

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A KING IN HIS OWN HOME. THE VILLA OF THE DIRECTOR OF THE BATA CONCERN IN THE SECOND REPUBLIC-ITS GENESIS, INTERNATIONAL CONNECTIONS AND ITS PANDEMIC REALITY

The article is the result of the author's research concerning the villa of Alojzy Gabesam, director of the BATA Footwear Factory, which was built in Chelmek in 1937. Owing to a detailed study of the architectural and construction substance as well as comparative analyses with other residential buildings of the BATA concern, it has been established that the villa represents, as far as its spatial structure and layout are concerned, a modification of the experimental house of the "Karfik" type designed by Vladimír Karfík for the International Architectural Competition held by the BATA concern in 1935, where judges included Le Corbusier, František Lýdie Gahura, Bohuslav Fuchs, and Dušan Jurkovič. This project was awarded and realised in Zlín as one of 4 important elements of a model residential colony, which is an example of an economical and at the same time comfortable single-family housing area. Similar projects were the famous Werkbund housing estates in Stuttgart 1927, Brno 1928, Breslau 1929, Zurich 1931, Vienna and Prague 1932. The Zlín colony with the "Karfik" type house is their later analogy. This project was repeated two years later in a slightly altered form in the Polish town of Chelmek, which does not appear to have been irrelevant for the international transfer of the idea of modernity. The building was put back into service in 2020 following its revitalisation as a cultural incubator for the town's residents. But do the solutions used meet the requirements of pandemic times?

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RYCHLEBSKÉ TRAILS AND THEIR IMPACT ON THE REVIVAL OF THE CZECH- POLISH BORDERLAND

The article presents an example of a project to revive a part of the Czech-Polish borderland in the vicinity of the village of Černá Voda in the Jeseníky poviat. Thanks to the involvement of local enthusiasts, the „Rychleby Trails” were created, currently one of the most famous cycling routes in the world. In 2020, the town with a population of five hundred was visited by over thirty thousand people. Historical buildings have been adapted to support increased tourist traffic. No commercial object that disrupts the space has been built. The study aimed to capture transformations in time and space and their impact on the surrounding space. The Czech example seems interesting because of the harmonious, moderate transformations of space in the architectural, urban and landscape scale. The restraint of intervention, against the background of transformations not only of Polish tourist destinations, indicates that the activation of space does not have to be tantamount to its devastation. The case study of local activities shows the excellent effects that can be brought by the combination of good organization of the local community and the involvement of relatively small financial resources, while maintaining the tradition of local material culture and restrained interference in the natural environment. Their implementation seems to be possible on a larger scale in other neglected, peripheral areas, even on an international scale.

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THE DIGITAL SURVEY FOR THE ARCHITECTURAL ANALYSIS OF THE MAUSOLEUMS IN LAZIO REGION: THE TOMBS OF “UMMIDIA QUADRATILLA” AND “GROTTA DEI MASSACCI”

In Lazio, and in particular along two important Roman consular roads, the Salaria and the Via Latina, there are two interesting mausoleums, respectively, the

Grotta dei Massacci, near Frasso Sabino (Rieti) and the tomb of Ummidia Quadratilla, in the archaeological area of Cassino (Frosinone). The original destination of the monuments is uncertain as well as the date of their possible construction. For the tomb of Ummidia, the most advanced hypothesis is that it was originally a temple, as shown by an inscription by Ummidia himself, then transformed into a tomb and later, during the Middle Ages, into a church. The origin of Grotta dei Massacci is probably due to the Laberi family, that after the marriage between Laberia Crispina and Caio Bruttius Praesentes, soldier and consul of the Roman Senate in 121 and 139 AD, had a villa built in the area then owned by the gens Bruttii. In 1712 the Sforza Cesarini family, lords of Frasso Sabino, decided to incorporate the ancient tomb into a new building and in the 1980s it was used improperly as a mechanical workshop. The two monuments have many similarities both geometric, due to the Greek cross plan, dimensional, if all the building components are reading according to the scale in "Roman feet", and finally technological, since both have a polygonal or cyclopean wall texture. A digital and photogrammetric survey was carried out on the two monuments which allowed the modeling and analysis of the architectural elements, highlighting notable similarities even with pre-Roman funerary buildings. The aim of the paper concerns the comparative analysis between two mausoleums, which although geographically quite distant, present numerous elements of similarity. The analysis is supported by digital survey technologies, a fundamental tool therefore not only for the geometric understanding of buildings/monuments but also for critical historical analysis.

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PERSPECTIVE OF DEVELOPMENT OF HABITAT FOR HUMANITY POLAND IN YEARS 1991-2023 IN THE FACE OF POST COVID REALITY

This article concerns the evolution of Habitat for Humanity Poland activities in years 1991-2023 – Habitat is the third sector leader in the fight against housing problems in Poland. The Organization's activities have been divided into four periods; for each one were indicated: the adopted strategic objectives, realized programs and key projects. The purpose of this text is to present the evolution of

the Habitat for Humanity Poland activities, to attempt to answer the questions whether their actions fit into the currently changing criteria of shaping the housing space and respond to global consequences related to the COVID-19 pandemic.

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GRAPHICAL DOCUMENTATION FOR PROTECTION AND ENHANCEMENT OF THE HISTORICAL CITY OF CAGLIARI (ITALY)

The documentation of the urban historical heritage is the preliminary step to identify the correct strategies for his protection and enhancement. To this aim is necessary acquire a graphic documentation at the different scales of detail required by a multi-layered system as the historical landscape; this complexity can now be explored integrating traditional and digital survey and representation methodologies. Traditional methods, in particular, guarantee a direct perception of the places and a total immersion in the landscape integrating and giving quality to the considerable amount of data offered by recent technologies; this approach is applied in the survey of the historical city of Cagliari.

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INVOLVEMENT OF THE LOCAL COMMUNITY IN THE DESIGN PROCESS AND FUNCTIONAL PROGRAM OF COMMUNITY CENTRES IN AREAS AT RISK OF POVERTY IN AFRICA – AN ANALYSIS OF BENEFITS

The article presents an analysis of how the involvement of the local community in the design and construction of the community centre affects the functions, construction costs and operation of the building as well as its role in the community. The research has shown that the local community clearly indicates the need to

implement practical functions in the centre, while the non-governmental organizations indicate the need to implement cultural functions, and that interdisciplinary research on the systemic diagnosis of local communities' needs is necessary and it could help architects draw up a flexible functional program.

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WEBGIS FOR THE ENHANCEMENT OF POST-INDUSTRIAL HERITAGE: AN ITALIAN CASE STUDY

During the second half of the XX century the industrial fervour which generated new urban centres or developed pre-existing urban structures in the previous century has slowed down. This economic transformation produced visible effects in the landscape of the cities. Abandoned industrial architectures are now one of the main problems of modern cities and at the same time are significant evidence of the past, manifesting the expression of the industrialized society. In Italy there is a little sensitivity towards post-industrial heritage because it is not considered part of national architectural heritage yet, indeed it is both a material and intangible legacy that represents the genius loci of working-class communities.

Sustainable development accompanied by maintenance of industrial heritage can be considered in terms of a search for new spaces for innovative functions, to ensure economic and spatial development; also in order to seek a balance between tradition and modernity, giving local communities a sense of identity and cultural continuity. In this process, the recent techniques of digital surveys using laser scanners, digital photogrammetry and so on constitute important tools for the enhancement of industrial heritage. The use of HBIM and augmented or immersive reality represents the vanguard of the digitization of cultural heritage. When it comes to the enhancement of large-scale cultural heritage sites the GIS, Geographical Information System, plays a key role in the management of the territorial data.

This research presents the interesting case of the historical centre of Isola del Liri, in Lazio, where many paper mills and felt factories arose transforming the

natural and cultural landscape. For the preservation and promotion of this site, a platform Web GIS constitutes an important tool for enhancing the heritage and building greater awareness among the community. This has numerous advantages since it can be used by technicians and non-technicians and can be seen as a digital archive of historical and cultural memory.

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DIGITAL APPROACHES FOR UNVEILING THE COMPLEXITY OF THE BENEDICTINE MONASTERY IN CATANIA

Heritage digitization is a common practice in Cultural Heritage sector. The applications span from documentation to conservation up to education and tourism domain. However, some reflections still have to be undertaken on the pivotal role played by reality based-models. They constitute at the same time a digital copy that describe the morphology of the investigated asset and the basis on which to develop interpretative, cognitive and fruition models. The research work here presented shows the experimentation of current digital surveying and representation methodologies aimed at the creation of models for the knowledge, documentation and fruition of museums heritage. The research is part of the funded project “Digital Fruition of the Benedictine’s Monastery and the Museo della Fabbrica”. The Monastery located in Catania (Sicily) is one of the biggest in Europe and has been listed in Unesco WHL since 2002. The hill where the monument arise has a history of about 2500 years. The construction of the building started in XVI century, then it was partially affected by a vulcanic eruption in 1669 and rebuilt after a strong earthquake in 1693. Nowadays seat of the Department of Humanities of the University of Catania this late baroque monument is characterized by a plano-altimetric complexity and several stratifications and integrations which make the understanding of the different phases difficult. The project aims to tell the story of the constructive phases over time through a visual narrative based on 3D models, making visible what is hidden to the eyes. The challenge addressed by our team consisted in the experimentation of expeditious techniques (such as SLAM, SfM) for the digitization of a very huge and articulated monument, and the exploitation of the obtained reality-based models for the

understanding of the benedictine complex and for exhibition design purposes (simulations, video mapping, virtual fruition) developing interpretative, cognitive, conceptual models.

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LOUVRE-LENS – THE UNION OF CULTURE, NATURE, AND ARCHITECTURE

The territory of the Nord-Pas-de-Calais Mining Basin was entered in the UNESCO World heritage List in 2012 due to it being an exceptional example of intense urbanisation which created a compact industrial conurbation spanning 120 km. In the centre of this area, whose cultural landscape was shaped by the development of coal mining and workers' housing estates, there is a truly exceptional place. The territory of a former mine, non-existent since 1960s, located in the heart of a drowsy little town, has been converted into a branch of the Parisian Louvre Museum. One place, shaped by the industrial culture, is a meeting point of art, nature, and architecture, creating a unique cluster, completely changing the character of the place and moving this degraded post-industrial area into a new dimension. The objective of this paper is to demonstrate changes of the past 10 years within the perimeter of the abandoned post-industrial area. In situ studies and analyses of literature devoted to heritage theory and economics determine conclusions associated with socio-economic effects of these transformations.

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ANALYSIS AND DEFINITION OF RESTORATION STRATEGIES WITH H-BIM APPLICATIONS. THE CASE STUDY OF VITTORIO GIORGINI'S "CASA ESAGONO" IN THE GULF OF BARATTI, ITALY

This contribution is focused on the "Casa Esagono" realized in 1957 by the architect Vittorio Giorgini in Baratti (LI), Italy. The research objective is to lay the foundations for a restoration plan of this experimental wooden architecture, which is now in precarious conditions due to its location near the sea. The paper describes, in particular, the workflow for the implementation of the H-BIM model, aimed to organise all the data deriving from the historical and on-site research, and the restoration programme.



INNOVATIVE IDEAS IN ARCHITECTURE

THE ARCHITECTURE OF CRISIS

The 21st century appears to be an epoch in which contrasts have become the determinant of all areas of life. The term 'crisis' originates from Greek κρίσις 'krisis' and means, in a general sense: choice, decision-making process, struggle and fight under the pressure of time. In the public discourse we most often encounter the subject of the climate crisis. It constitutes the chief topic of discussions in the scope of sustainable development and creation of new paradigms of planning and designing. In fact, 'crisis' is a widespread phenomenon and refers to the fundamentals of functioning of societies, economy, climate and, last but not least, the system of values which the post-Enlightenment society was based on. The vision of humanism – as the basic value underlying the civilisation development – falls when faced with brutal phenomena in the world of economy, politics, sociology and global threats. We assume a priori that development is the objective of the mankind. However, we can notice in many areas that the development at all cost becomes the cause of the phenomena endangering not only individuals, communities or nations, but the very existence of humanity as such.

The crisis / turning point / breakdown of previous directions of development in different fields is becoming a permanent and common phenomenon leading to the decline of trust to the state, institutions, democracy, science, authority and developmental objectives. A sense of constant threat becomes grounds for the negation of liberal development concepts and the return to the ideas of statism. Crisis, from the perspective of sociology, poses a risk to the fluidity of the developmental cycle of societies and may result in destructive processes. The source of such processes lies in conflicts, whose peaceful solution – without revolutionary changes (both in material and spiritual sphere) – seems to be unattainable. This fact has impact on architectural space, which has always been the image and reflection of the society that constructs it.

All the above-mentioned issues contribute to the appearance of contemporary architecture – full of contrasts, contradictions and radically different development trends. Therefore we pose the following questions including seeming or actual contradictions, which may become the subject of discussion. These questions represent, in fact, challenges which should be addressed by the analysis of the directions of contemporary architecture:

- expenditure vs profit in the design addressing the requirements of ‘sustainable development’ (?);
- ‘green’ architecture vs architecture of advanced technologies (?);
- modern architecture vs ‘spiritus temporis’ (?)
- atrophy vs development – as a new determinant in urban planning (?);
- social architecture vs architecture of surfeit (?);
- temporary architecture (pop-up architecture, emergency and disaster shelters)
vs territoriality in architecture (?);
- architecture of temporary housing vs identity in architecture (?);
- architecture of poverty vs critical regionalism (?);
- recycling in architecture vs upcycling in architecture (?);
- landscapes of conflicts (vs) space of conciliation (?)..

The conference ‘Modernity in Architecture’ will be accompanied by an exhibition dedicated to several generations of the Majerski family, creators of art and architecture. The opening of the exhibition will be followed by lectures on Ferdynand Majerski (1832-1921), Stanisław Majerski (1872-1926) and Zygmunt Majerski (1909-1979).

Organizing committee:

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ARCHITECTURE AGAINST A BACKGROUND OF THE CRISIS OF THE SOCIAL PROJECT OF CHILDREN DESIGN – CHILDREN’S MUSEUM AS A FIELD OF INNOVATION

The article presents, in a synthetic way, directions of development of the contemporary architecture for children, where the traditional dichotomy child / adult disappears, giving way to integrated solutions. The paper aims to investigate selected contemporary examples of children’s museums in the context of the crisis of the social project of ‘Children Design’ which was so well embedded in the 20th-century architecture. A set of the research methods included: a review and analysis of available subject literature, Internet sources, case study and empirical in-situ investigations. A critical comparative analysis of the collected data made it possible to draw conclusions – children’s museum is nowadays a field of innovations within the scope of defining the child’s place in architecture.

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DEVELOPMENT OF GRAVES AND BURIAL RITUALS IN EUROPE BEFORE THE GREAT ROMAN EMPIRE

Burials were always connected to belief of people in certain time. This work describes the oldest societies in Europe until the time of influence of Great Roman Empire. Many cultures connect the burial practices with kind of journey from one place to another, passage from one state to different one, what is declared by architecture and objects found in graves. The oldest graves imitate cave with a corridor and chamber inside.

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RENOVATION OF THE RAILWAY STATION BUILDING IN ŚWIEBODZICE

The aim in separating the architectural space is to create a structure designed to meet specific functional and aesthetic requirements, the construction of the space can be done with the use of various methods and activities. The example of the Railway Station in Świebodzice states background for finding in space and shaping the space in a multi-directional way.

The aim was to examine the space of the railway station in terms of architectural and non-architectural criteria. Architectural factors were based on the criterion of the qualification of space relating to "activities determining the state of living", non-architectural factors were based on the criterion of qualifying space in the context of "hyper-reality of state and place".

The method of logical argumentation was adopted for the research, interpreting reality on a selected example in order to understand the existing conditions.

The result is a graphic record of the projections' plans in the living space with simultaneous and linear performance of activities determining the condition of the apartment and the formation of forms of living in space in the context of the real and apparent (simulacra) image of the place of residence.

The conclusions show the form of simultaneity or linearity in the analyzed architectural space and the case of shaping the space reflecting deep reality and the case of feeling the image of a space that distorts and conceals deep reality.

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CONTEMPORARY FUNCTIONS OF URBAN RIVERSIDE AREAS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT IN ARCHITECTURE, ON THE EXAMPLE OF THE MŁYŃSKA ISLAND IN BYDGOSZCZ

The aim of the article is to specify the directions of shaping the contemporary functions of riverside areas in the context of sustainable development. An example of research is the Młyńska Island in Bydgoszcz. The research methodology adopted in the article is of an analytical and cognitive character. First, the issues related to the contemporary functions of riverside areas in the city and the aspects of shaping the built environment were analyzed. Subsequently, the functional and spatial structure of the island was analyzed in terms of the contemporary functions of the riverside area and the criteria of sustainable development in architecture. The obtained results and final conclusions lead to the support of design processes that enable the creation of sustainable riverside spaces in the city.

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OLD WARDROBE TREASURES – ON THE DISCOVERY OF THE COLLECTION OF DESIGNS IN ŻOŁYŃIA, IN FRANCISZEK DĄBROWSKI’S STUDIO

A tale of a journey to the knowledge of the legacy left by the Dąbrowski family and the discovery of a precious collection of designs, concerning mainly sacred art, among which the works by Ferdynand and Stanisław Majerski were found. The history of efforts aiming at the preparation and documentation of this unique assemblage as well as the promotion of the whole artistic work of the Dąbrowski family. Presentation of the most important sites of implementation of the Majerskis’ designs: in PRZEMYŚL, LVIV, CRACOW, ŁAGIEWNIKI; in the cities of SIBERIA: TYUMEN, KURGAN; and in the United States of America: BUFFALO, DETROIT. The chronicles of the research and investigations conducted by the Cardinal Stefan Wyszyński University in Warsaw.

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THE PASSIVE BUILDING STANDARDS – ARCHITECTURAL COMPARISON

One of the XXI century crises is air pollution and extreme weather changes. Building sector emits nearly 40% of total CO₂ and consumes one-third of global, final energy.

This article presents architectural comparison and evaluation of Passive House, be2226 and Earth House standards. Those standards use architectural procedures to design passive, energy efficient buildings without the need of high-technology to manage inside climate comfort. All presented buildings have low heating and cooling energy demand.

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TRADITIONAL OR ZERO-ENERGY RESIDENTIAL BUILDING – A COMPARATIVE ANALYSIS OF A SELECTED EXAMPLE

The aim of the article is to present an innovative project in which a comprehensive system was designed to optimally use renewable energy sources. The essence is to emphasize how important it is to properly select technologies and system components and to be aware of their mutual interaction. The methodology includes a case study of a selected example designed by the author of the article. It has been shown how at the pre-design and concept stage it is possible to rationally use technologies using renewable energy sources, thus improving the comfort and safety of users without a significant increase in construction costs.

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ANALYSIS OF STATISTICAL DATA ON CONSTRUCTION IN THE CONTEXT OF CONSTRUCTION WASTE PROCESSING AND THE POSSIBILITY OF THEIR REUSE IN ARCHITECTURE

The world is dominated by the linear economy model, in which the amount of raw materials use increases, and the product becomes waste at the end of its life. However, increasingly steps are taken to introduce a circular economy in which products are not wasted but reused.

Eurostat data show that over 35% of waste generated in the European Union is construction waste, which makes it a sector in which circular solutions especially are worth looking for. In order to get to know the data on construction in Poland, the focus was put on the analysis of statistical data from three sources - the Central Statistical Office (GUS), the Central Office of Construction Supervision (GUNB) and Voivodship Reports on waste management. The first one provides information on indicators in housing construction, construction and assembly production as well as the delivery of apartments and buildings in Poland. On the other hand, among the statistics obtained from the GUNB, it was possible to analyze data on the construction process and current trends in construction, i.e. building permits or demolitions carried out.

This paper shows that activities in the field of construction translate directly into material production, and this in turn into the production of construction and demolition waste. Each building permit represents a new construction site that will generate construction waste, and each construction and demolition is a potential source of materials.

In the statistics of the Central Statistical Office of Poland, data and correlations of data on the quantity, processing or storage of collected construction waste are difficult to trace both due to their enormous diversity and the relatively short period of reliable, selective waste collection in Poland. The analysis of statistical data allows to notice, inter alia, the increase in construction activity in recent years which necessitates the development of waste reduction strategies and better management of these residues. The combination of this information with the data contained in voivodship reports, on the basis of which the structure of construction

waste was created, may allow in the future to build a set of guidelines for more intensive use of these materials.

Among construction waste from demolition and renovation, only a small fraction of the material is reused, such as concrete aggregate, steel or demolition brick. However, there are many examples where demolition materials can be reused, only if they are properly dismantled, deposited and restored or recycled with little energy expenditure. The authors of the paper will present a few selected examples of successful Polish and foreign projects.

The aim of the paper is therefore to analyze statistical data related to the construction process and the related construction materials issues, as well as to present examples of re-use of building elements in construction. The methods that were used to conduct research in this area are: analysis of statistical data and data from reports of institutions related to the construction process, literature research, own experience from the design work carried out.

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CHANGSHA MEIXIHU INTERNATIONAL CULTURE & ARTS CENTRE BY THE MEXI LAKE IN CHANGSHA

This article concerns landscapes of conflicts and design solution of conciliation in Changsha Meixihu International Culture & Arts Centre by the Mexi Lake [1]. The city of Changsha in China needed a place that would connect three important institutions: two theaters and an art museum. They had to be concentrated around a common public space - they couldn't compete with each other but they had to be designed to coact. In their shape and in the way of resolving design conflicts, these three facilities of the center are unique and deserve an extended description.

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BETWEEN MODERNITY AND TRADITION – TRANSCULTURAL ASPECTS IN THE ARTISTIC WORK OF THE DUO: ZYGMUNT MAJERSKI - JULIAN DUCHOWICZ – SELECTED ISSUES

Zygmunt Majerski (1909-1979) and **Julian Duchowicz (1912-1972)** are a well-known duo of architects, first active in pre-war Lvov (present-day Lviv) and then in the cities of Gliwice and Wrocław. They graduated from the Faculty of Architecture at the Lvov Polytechnic University and began their work as assistant lecturers. After WW2, they became full-time employees of the "Miastoprojekt" design studio in Katowice and Gliwice as well as senior lecturers at the Silesian University of Technology in Gliwice and the University of Science and Technology in Wrocław. The two gentlemen were lifelong friends since the time they had met as students and continued their collaboration later on the professional ground. Out of the total number of 74 designs, together they made as many as 43, the majority of which was awarded prizes in architectural contests in the days of the Second Polish Republic (II RP) and the Polish People's Republic (PRL).

Their implementations represent four chief trends typical of the development of European architecture:

1. **Radical Modernism**, otherwise called the International Style or Functionalism, e.g.: **Spring and Spa House in Jurata, 1934**;
2. **Radical Modernism combined with Neoclassical Monumentalism**, which is called the Style of the Year 1937, e.g.: **Youth Palace in Katowice, 1949-1951**;
3. **Neoclassical Monumentalism** deeply rooted in the Mediterranean tradition, showing the features of mild socrealism, e.g.: **Edifice of the Faculty of Mining Engineering of the Silesian University of Technology in Gliwice, 1950-1953**, and a concert hall: **House of Music and Dance in Zabrze, 1954-1960**;
4. **Late Modernism** with international links, e.g.: **Stawowa Housing Estate in Gliwice, 1960-1968**, **the residential and services Megastructure** located at Krakowski square in Gliwice, **1962-1963**, and the **Theatre in Opole, 1961-1964**.

Their artistic work as well as didactic and organizational activity are the model and the pillar of the Silesian school of architecture. In recognition of their

outstanding achievements and contribution to the development of contemporary Polish architecture, they were granted the national merit award - SARP in 1973.

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REINTERPRETATION OF THE SPACE OF THE FORMER ROYAL QUARTER IN OLKUSZ

Renovation of the space of a building or a historic complex is carried out behind a specific, historic facade, constructed from old content, name, elevation and spatial structure. It is connected with a semantic reinterpretation, as a result of which the material structure of the whole as well as its elements become carriers of different, non-historical content...

The building of the Former Starosty, located at the Market Square in Olkusz, together with the courtyard, underground chambers and corridors, has recently been thoroughly revitalized. The introduced functions are new for this facility, they completely change the way it functions. However, this is not the first major change the area of the Former Royal Quarter has experienced.

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FROM OŚWIĘCIM TO KOŁOMYJA. A HALF THOUSAND KILOMETRES OF ART AND CRAFT BY FERDYNAND AND STANISŁAW MAJERSKI

The principal aim of this presentation is to provide an outline of the artistic work created by Stanisław and Ferdynand Majerski - the father and grandfather of a renowned architect, professor Zygmunt Majerski. The Majerski family, who for almost a century were bound with the city of Przemyśl, left their artistic imprint in

numerous towns and villages in the form of countless sacred interiors and cemeteries. Ferdynand had a sculpting, stonework, carpentry and gilding workshop - studio for about half a century. He collaborated with art restorers and renowned architects of his time. He created hundreds of altar pieces, pulpits, baptismal fonts as well as iconostases, Aron ha Kodesh and tombstones. The works produced by his workshop can be found now in the Wawel cathedral in Cracow, both cathedrals in Przemyśl, the Lviv cathedral and dozens of churches belonging to religious orders. His son, Stanisław, co-ran and continued the work of the family's workshop – studio, and took it to new heights. He designed altar pieces and other elements of temples. In the field of architecture, his most recognizable artistic creation is that of sacred spaces, which can be seen in the form of several dozen churches. His activity was influenced by his multiannual collaboration with Józef Sebastian Pelczar, the-then bishop of Przemyśl, for whom he designed numerous buildings. Both Stanisław and Ferdynand Majerski were very much involved in the cultural, social and political activity of the city of Przemyśl and actively participated in their trade associations.

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EXISTENCE OF INTELLIGENT BUILDINGS DISCOMFORTS

The intelligent buildings consists high-technologies and are equipped with progressive devices and systems. In spite of the concept of intelligent building on technology, it would be important to create a sophisticated architectural concept in its creation. The discomforts overview of intelligent buildings proves that in most cases, their occurrence is linked to over-sized, improperly designed and malfunctioning technology. Therefore, it is not important to understand intelligent buildings as technological, but especially as an architectural form of building development. Architecture is predetermined naturally and correctly materialize requirements through the architectural concept of intelligent buildings and the needs of intelligent buildings users and residents. Architecture, compared to technology, creates timeless value that lasts over time and efficiently reflects changes and environment requirements.

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PROMISED LAND 2.0. “EXODUS, OR THE VOLUNTARY PRISONERS OF ARCHITECTURE” – HERMENEUTICS OF SUBVERSION

The article proposes an interdisciplinary approach to the analysis of the diploma project "Exodus, or the voluntary prisoners of architecture", the presented interpretation should be treated as one of the possible.

The work by Remment L. Koolhaas, Madelon Vreisendorp, Elia Zenghelis and Zoe Zenghelis was defended in 1972 at the Architectural Association School of Architecture in London, and the project itself was a catalyse for the establishment of Koolhaas' Office for Metropolitan Architecture. Thus, "Exodus" can be seen as setting the tone for the future achievements of this outstanding architect. The article offers an interpretation of the work in a literary context, arguing that such a reading is justified for two reasons. Firstly, R. Koolhaas began his career as a writer before he turned to architecture; secondly, "Exodus" is clearly grounded in a philosophical and literary context. This approach allows for a deeper understanding of this concise and, in a sense, hermetic work. The article relates "Exodus" to the Bible, Francis Bacon's "New Atlantis" and Aldous Huxley's "Brave New World" It demonstrates that these works share the same central concept – that is, the search for a model of a new and better world – and in particular solutions. It also emphasizes the original contribution of the authors who make "Exodus" a work that creatively develops existing ideas. Reading this work in a literary context makes it possible to see it as a warning: Koolhaas' degenerated metropolis is on a straight path to self-destruction, but the alternative he proposes is a world in which people are slaves deprived of their fundamental rights.

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BLUE-GREEN ARCHITECTURE – THE CONCEPT OF RAINWATER MANAGEMENT

The scientific goal is to investigate the impact of blue-green architecture on creating the city's resilience to extreme atmospheric phenomena related to climate change, based on rainwater management. Undoubtedly, the problem provides one of the most significant future challenges, both natural and in terms of social and economic issues.

The research methods necessary to define and solve the scientific problem that were applied included: analysis and criticism of source literature, observation without intervention, case study, intuitive method based on the author's personal experience.

As the research results have shown, conscious rainwater management minimizes the effects of climate change, including droughts or torrential rains that lead to area flooding and urban floods. Improving retention and strengthening blue-green infrastructure can be based on technical, semi-natural, and natural, i.e., less invasive methods. Instead of being uselessly drained, the rainwater can be retained and used through various solutions. These include green roofs (extensive and intensive) and walls, wetland roofs, rain gardens (dry, wet, box-based), greenery areas (natural retention areas), water reservoirs, water-permeable surfaces.

Hence, it may be concluded that rainwater can support urban spaces in response to climate change rather than being a threat to the city. The city may absorb water, store it, and return it when needed.

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COMPILATION DWELLING SPACE IN POST-PANDEMIC SMART CITY. THE POTENTIAL OF ADAPTATION OF APARTMENTS IN MULTI-FAMILY BUILDINGS IN KATOWICE

The living space has become a multidimensional platform for activities taking place in real and virtual realities. The compilation house functions simultaneously in space and in the information cloud. The pandemic has emphasized the need for outdoor living spaces that are in contact with nature - the post-pandemic smart city

dwelling is therefore intended to combine elements of culture, nature and information.

The research includes analyses of potential adaptation of exemplary dwellings to the needs of a smart city understood as a system combining built, natural and virtual worlds.

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DEVELOPMENT OF MODULAR ACCOMMODATION FACILITIES AND ITS IMPACT ON THE CURRENT HALLS OF RESIDENCE DESIGNING

The idea of streamlining the efficiency of the construction process by prefabrication of construction modules in architecture is not purely new. It came across a long history, started with the experiments of Thomas Edison's concrete homes through architectural notabilities such as Frank Lloyd Wright and Walter Gropius. All known architectural visions, studies and modular housing developments have made a significant contribution to the development of the other typological forms of accommodation facilities and had raised the issues of the interior multifunctionality, minimum area housing and its relation to the psychological effects on the user, residential cells mobility as well as the interdisciplinary link of the architecture to the other science disciplines. The contemporary architecture not only follows pioneering ideas of renowned architects that were of revolutionary nature at the given time, but it also schematically mirrors the core ideological concept of those architects. The current architectural design of alternative halls of residence built from prefabricated modules / living cells followed the modular architecture tradition in the past. The core of report consists of those resulting from the analytical part – atomized into separate categories essential for finding interrelationships and contexts making college modular buildings and sites.

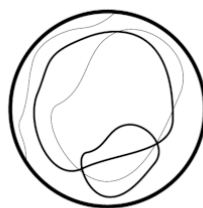
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ORIGIN AND IMPLEMENTATION OF THE EHTIC BUILDING ON THE AREA OF THE SILESIAN UNIVERSITY OF TECHNOLOGY CAMPUS IN ZABRZE. ICONOGRAPHIC PROGRAM OF THE BUILDING INTERIOR (2020/21) AS AN EXAMPLE OF A SYMBOLIC COLLAGE OF THE PANDEMIC PERIOD

The design of the EHTIC building by Grzegorz Nawrot and Tomasz Wagner (Faculty of Architecture of SUT Gliwice) and Adam Niedośpiął (BBC Best Building Consultants) was designed as an intelligent and energy-saving building with a compact structure and aesthetics resulting from the function. The construction of the building lasted from spring 2020 to September 2021. The construction works were carried out by Mostostal Zabrze, Gliwickie Przedsiębiorstwo Budownictwa Przemysłowego (GBP). It is currently a university-wide unit of the Silesian University of Technology that conducts interdisciplinary research, service, information, training and promotion activities in the field of technology for health. The functioning of the facility is related to the development in the area of health technology, creation, development and implementation of innovative medical technologies, prevention, diagnostics and medicine. It is a group of highly specialized laboratories in which modern technologies and products are developed to respond to the challenges of modern medicine, especially in the area of an aging society, as well as personalized medicine and biomedical engineering. The EHTIC iconographic program is an eclectic, postmodern game of loose phrases taken from the history of European culture. It is an attempt to express the intellectual climate of the first stage of the COVID 19 epidemic, which was, apart from the medical aspect, a time of a number of important events in the world of culture and a time of intellectual reflection. An interesting aspect of the times of the new pandemic was the return to the archetypal "dreams of humanity" about the power of death, destiny, human thought (but also stupidity), the period of returning faith in the power of science, especially medical science, and the power of community. The images integrated with the interiors are to give the building a humanistic, timeless and supra-technical dimension, symbolizing the development of human thought. The images integrated with the implemented interiors contrast with modern

architecture, creating a postmodern collage of artistic content and historical motifs. This narrative, in conjunction with the EHTIC building, is a collage that encourages the viewer to stop, reflect and reevaluate thinking about setting "man in time".



REGION
TOWN &
COUNTRY

REGION, TOWN AND COUNTRY

LET'S REINVENT THE CITY!

Cities all over the world are struggling. Some of the difficulties are different for different cities (e.g. over- and under-population, over- or under-development of infrastructure), some affect cities worldwide (climate crisis, fossil fuel depletion, financialization of the housing sector, economic crisis). However, the 21st century has brought an additional challenge to all cities making the solutions to urban problems applied so far insufficient. What is needed is a paradigm shift within which cities function and develop.

These are some examples of issues that need to be considered:

- New concepts of housing (spatial and organizational, new also in terms of social changes caused by the pandemic).
- New forms of work spaces (should work continue to take place at home after the epidemiological threat has passed?)
- New concepts of public space (how can urban places be designed in an age of social demands for distance and in the face of ecological crisis?)
- New concepts of urban development (perhaps it is time to stop talking about development in terms of quantity? Maybe sometimes the best form of development is limitation?)
- A new meaning of smart development (we already know that a smart city is not a city full of technology. But what is it then?)
- New ways of spatial planning taking into account the fluid reality and its rapid shifts.

We are convinced that such rethinking has been needed for a long time and only the pandemic has given us the courage to think about it seriously. We invite researchers from different disciplines and stages of an academic career (including undergraduate and graduate students) to think together about the future of cities. Let us try to invent a new and better spatial reality, forgetting for a moment the realities, limitations and established ways of thinking.

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MAPPING TIME. STRUCTURES FOR THE IMAGINATION

This presentation seeks to rediscover some urban configuration techniques through the redrawing of the city. In the way in which the parts of a city have been generated over time, some latent structures are identified, useful for the Urban Design project.

These structures concern not only the relationship between part and monuments, considered the catalysts of urban development, in space, but also in time. In a figurative approach that refers to the Italian tradition of architectural and urban Composition, Mapping Time is understood in a synchronic way, in which the different configurations that the parts have gone through over time, unfold an open field of possibilities, to the range of possible solutions and that we can imagine.

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PLANNING AND DESIGNING GREEN AREAS IN CITIES - A CASE STUDY OF A POCKET PARK IN GLIWICE

This paper presents the issues of creating pocket parks in the light of significant measures to counteract climate change as well as contemporary tendencies of understanding "green areas" in cities. The role of each green area in cities seems to be significant from the point of view of caring for its climate. On the other hand, the aspirations of selected social groups to take actions aimed at shaping the face of the city are important. With regard to this aspect, there are noticeable new opportunities as well as new forms of greenery that meet the aspirations of city

dwellers. As a result, such spaces become important both in the spatial and social aspect.

Pocket parks belong to this group. Many of them were created thanks to social and urban initiatives, in previously inaccessible or neglected areas.

The authors discuss what are pocket parks? Is it a completely new, previously unknown form of urban greenery, or is it the best known, but under a new, perhaps more "catchy" name? The paper presents a few pocket parks case studies, their role in cities and the history of their creation. These sample projects were compared with the proposals submitted for the urban planning competition for a pocket park organized by the authors, which was to be an answer for the question about: the definition, form and meaning of a pocket park located in the indicated, example location in Gliwice.

Conclusions from the comparative analysis of exemplary implementations with competition works, which are a form of an experiment carried out by the authors, may be useful for creating urban policies, planning green areas in cities and creating utility and functional programs for new green areas.

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DESIGN EXPERIMENTATIONS IN CASTELVECCHIO CALVISIO, ITALY (AQ)

This paper presents three experimental projects for the transformation of medieval houses in Castelvechio Calvisio, a hilltop town in Abruzzo, accomplished during the 2nd International ISAR Architecture summer school, held therein from July 17th to 27th, 2020 (tutors: Alessandro Camiz, Özge Özkuvancı, Giulia Bertola; students: Elif Gökbulut, Marija Petrović, Aslı Kankat, Cemre Uslu, Ece Alkan, Li Qingfang). The team created 2D drawings and 3D models by representing the main fronts of the building units. The medieval pseudo-row houses of the walled city, in order to be rehabilitated after the earthquake, required both a structural consolidation and a typological update. After individuating the local typological process (Caniggia & Maffei, 2001) the design team outlined the possible evolution of the existing building types according to a consolidated methodology (Strappa, Carlotti, Camiz, 2016) and, after selecting three pseudo row-houses, named "A", "B" and "C", transformed them respectively into a row house and into two inline

houses. Despite the radical typological transformations, all the projects followed Cesare Brandi's (1963) principles of restoration demonstrating that it is economically convenient and possible to restore the existing houses inside the walled core of Castelvecchio Calvisio (cost estimation for House "A": 1088 €/m²). The Local Administration should be given the necessary resources, and a repopulation strategy should be deployed both at national and regional level to bring new life to a town to this date almost completely abandoned.

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THE FUTURE OF URBAN AREAS - THE CASE OF THE SILESIA REGION IN THE FACE OF CLIMATE CHANGE

Today, due to climate change, we are faced with a major urban planning challenge. This issue raises numerous questions about the future of planning and design at several levels.

The presentation aims to formulate such predictions for the Central European region, with a focus on the Silesian Voivodeship. These predictions are based on the studies conducted within a research grant of the student science club *eco_SYSTEM*, the aim of which was to analyze the impact of climate change on the selected area. The research considered a complex interplay of several factors: shifting climate zones, changes in agriculture, changes in biodiversity, changes in hydrological

conditions, and the occurrence of extreme hydrometeorological events. All data were collected from sources such as geoportals, open data portals, environmental reports, and urban adaptation plans.

The research allows us not only to capture all current changes, but also to outline future challenges for urban areas, which in turn allows us to develop guidelines for sustainable, climate-resilient design and planning.

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SIMULATION-BASED VERIFICATION OF METHODS FOR PREVENTING EPIDEMIC ESCALATION IN AN URBAN ENVIRONMENT

The concentration of citizens in urbanized areas, generally beneficial, turns out to be extremely dangerous in the face of man-made and natural disasters, including epidemics. It appears that cities with greatest demographic densities, are the most susceptible to them. Currently, authorities in different countries introduce wide variety of restrictions, which should counteract epidemic spread. This include social distancing, limiting number of people in certain locations, closing schools, kindergartens, companies, mandatory home quarantine and many others.

In our paper we are presenting methods established within multidisciplinary team of researchers for reliable verification of regulation and rules before they are introduces. Methods has been tested on selected mass housing estate district in Cracow built in the second half of the twentieth century which is predominate in numerous Polish cities. Thress hypotheses are posed:

1. Simulation of pedestrian dynamics in detailed urban complex will allow verification of methods to counteract epidemic escalation in urban environment;
2. Results of simulation of specific areas will identify the points (places) that cause the spread of the epidemic – this will allow them to be protected or the rules modified;

3. The model can be used to design more epidemiologically safe areas and create a definition of design principles which reduce the risk of disease spread.

The analysis and verification of rules for preventing epidemic spread could be based on a detailed, microscopic simulation of pedestrian dynamics in urban environment. Such a simulation, in contrast to the widely used epidemic spread models, has to reflect details of urban environment structure and typical behaviours of people. This methodology has not been used so far for large urban areas due to limitations in computing infrastructure and lack of developed algorithms combining large-scale population dynamics and social contacts.

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GREEN DREAMS OR A QUESTION OF JUSTICE? NEGOTIATIONS ON GREEN SPACE PROVISION IN THE EUROPEAN CITY

Public open space is not evenly distributed throughout a city and among residents. This creates injustice in open space supply. Already in the 19th century, a lack of accessible green space for poorer parts of society was understood as a major social question. In recent years, with issues of public health getting more into the focus of urban policies, this topic is increasingly discussed in the frame of environmental justice. The assessment of what would be a just supply, however, raises questions. Referring to Susan Fainsteins approach towards a just city (2010) and the three values of equity, democracy, and diversity, it will be examined, how far processes of public open space supply actually touch on environmental justice. Which planning instruments are available to support this normative goal? Are all three values of justice supported by recent modes of production alike and which values show to be especially challenging? The discussion is based on international literature and recent examples in Germany. As will be shown, the German planning practice comes with a traditional attempt towards equity and has gained some experience in participative approaches over the past decades, but still shows a rather blind spot on issues of diversity.

Łukasz HARAT*

ARCHITECTURE AND ACOUSTICS. A STUDY OF STRATEGIES FOR SHAPING PSYCHOACOUSTIC CONDITIONS IN CITIES

The adverse effects of noise in urban spaces on human health are attracting increasing interest among researchers and authorities at all levels. An example of such interest is the European SILENCE program, which applies an acoustic ecology approach to urban design. This paper is a summary of case studies of international, national and local governmental public psychoacoustic strategies. The research focused on ways to reduce the negative impact of noise in urban spaces. Tools for the implementation of acoustic policies were catalogued.

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PARTICIPATION OF CHILDREN IN SPATIAL PLANNING PROCEDURES

The chapter of the monography analyses the possibilities, limits and deficiencies of spatial planning procedures in Poland in regard to involving children. The chapter highlights the areas where participatory improvements could be made and showcases possibilities of adapting currently binding procedures. Differences between participation of adults and children are presented, which underline the need of a different approach to minority groups. It is theorized that involving a broad spectrum of social groups into spatial planning procedures is an area worth exploring.

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NEW WAYS OF SPATIAL PLANNING IN THE SILESIA VOIVODESHIP (POLAND)

The basic question posed in this article is as follows: In the context of rapid changes taking place and the "fluid reality" and the "rigid" formal spatial planning system, established in Poland at the beginning of the twenty-first century, are there any new ways of spatial planning in the Silesian Voivodeship, fundamentally different from the way of traditional planning and responding to contemporary challenges?

In search of an answer to the above question, a method of comparing the three spatial development plans of the Silesian Voivodeship, adopted in 2004 and 2016, and the plan currently being prepared, with the previous ones in the area of the Silesian Voivodeship, developed in the years 1945 - 1989, i.e. during 45 years of spatial planning in the times before the Polish transformation.

Conclusions relate to new ways of spatial planning in the Silesian Voivodeship and the key concepts and the institutional context of planning.

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HYDROTECHNICAL DEVELOPMENT WITH VEGETATION AS OPPORTUNITIES FOR LIFE QUALITY IN CITIES

Hydrotechnical development in many cases is necessary to the water balance improvement. The introduction of water structures may lead to the decrease of

natural landscape values. However, the durability, aesthetics, and ecological potential of the watercourse may be increased by biotechnical structures introduction. The small water structures introduction in the urban landscape translates into the economic aspect of using urban space, the expansion potential, and the city image.

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VALUATION OF HISTORIC BUILDINGS AND ITS INFLUENCE ON SPATIAL DEVELOPMENT OF CITIES IN THE PERSPECTIVE OF ALOIS RIEGEL'S THEORY

The aim of the article is to show how the methods of valuating historic buildings influence the spatial development of the cities. The article revises the classic concept of valuation formulated by Alois Riegl, which is the basis for conservation activities in this area. This analysis will allow to define what changes can be made to improve the impact of action taken by monuments conservators on the city's spatial policy, including the adaptive reuse of historic buildings.

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RECYCLING OF POST-INDUSTRIAL SPACES AS AN OPPORTUNITY TO SAVE INDUSTRIAL HERITAGE

Post-industrial areas located in city centers are qualified for revitalization usually preceded by liquidation of the infrastructure. Partially empty areas containing historic buildings, whose liquidation is impossible and become problematic. The article aims to compare the quantity and quality of reused space. Conclusions of the conducted research confirm, that revitalization of post-industrial

areas allows maintaining historic buildings in a good technical condition and may contribute to limiting urban sprawl into open areas.

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CAN HOUSING ON THE WATER BECOME AN ANSWER TO THE PROBLEMS OF THE CONTEMPORARY CITIES?

The aim of the study is to analyse housing developments on the water and find an answer to the question if floating neighbourhoods might become a solution to the problems of the contemporary cities regarding the land scarcity, overpopulation and flood risk. The analysis is based on field research and literature studies. The presented conclusions might be useful for future developments of the housing neighbourhoods on the water as a way of potential reinvention of the cities.

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CHANGING THE NARRATIVE: INCLUSIVITY, DIVERSITY AND REFLEXIVITY IN DREAMING FOR A REAL WORLD

We have come to a point of no return: whether it is global warming, climate change, sea level rise, considering sustainable development goals being applied in countries and cities that we can't even imagine, in societies which are so removed from our own. And in the global north we continue to teach architecture with a Capital A, to students who may not come from elite backgrounds, who just want jobs, and who have a keener sense of environmental and social justice than many of us. Our cities are increasingly more diverse, ethnically, racially, ably and sexually and yet we continue to reflect on product rather than practice. In teaching history and theory of architecture I am compelled by polemics, especially those in times of social change, and we are currently embedded in a broader, more inclusive polemic like no other.

I argue in this paper that the time for exclusionary practices in the built environment is over. They remain in an elitist paradigm serving elitist 'gods' and at the same time continue to produce buildings with timestamps on them, rather than an enduring, socially, ethically, environmentally and economically sustainable product. The ethical approach embedded in Robert Venturi's production of buildings for the man in the street has ironically become more exclusive, less reflective and more elitist than ever before. We need to urgently rethink our internal, external and city envelopes to be able to provide more inclusive, diverse and reflexive practice in making buildings.

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A SOCIAL STRATEGY FOR HOUSING INVESTMENT PLANNING ON THE EXAMPLE OF PARTICIPATORY ACTIONS IN CHEŁMNO (POLAND)

To prepare the Study of Conditions and Directions of Spatial Development in Chełmno, analyses were carried out that showed an urgent need to organise space for new housing investments. Actions were planned and implemented to involve stakeholders in the process of creating the planning document, as well as strategic documents concerning housing policy and revitalization of the town. Residents involved in the participatory process indicated their needs and expectations. The aim of the study was to determine to what extent inhabitants influenced the shape of the housing policy and urban planning and architectural guidelines. The research was carried out among the residents of Chełmno and the surrounding area using tools that engage and build a sense of urban identity. The whole process in part took place during the Covid-19 pandemic which had an impact on the research and on the operational activities undertaken in Chełmno. The data obtained show the complexity of the issue and the limitations that the municipality has in creating a strategy to develop the city based on the intelligent use of human resources. The whole process of involving inhabitants in the town's spatial planning also showed the potential of social energy to dynamically influence the directions of strategic changes in the municipality and thus the potential to create urban resilience to emerging crisis phenomena.



EXHIBITIONS



THREE GENERATIONS OF ARTISTS – WORKS AND TECHNIQUES OF FERDYNAND, STANISŁAW AND ZYGMUNT MAJERSKI

Curators: Magdalena Kątnik-Kowalska, Beata Majerska-Pałubicka, Ryszard
Nakonieczny, Bartosz Podubny, Tomasz Wagner

Presented materials come from a recently found, and for many years deemed lost, collection of Majerskis' designs. The collection is currently catalogued and elaborated by the team of: Anna Sylwia Czyż, dr hab.; Katarzyna Chrudzimska-Uhera, dr hab. (the Cardinal Stefan Wyszyński University in Warsaw) and Bartosz Podubny, in collaboration with the Centre of Culture of the Żołyńia Commune. The project is supported by the resources of the National Institute of Polish Heritage Abroad "Polonica" – the Dąbrowskis'-of-Żołyńia Collection, and also by the collection of records kept by the Archive of the Przemyśl Archdiocese, the Museum of Architecture in Wrocław, the Majerski family and the resources of the authors of this exhibition.

The collection presented at the exhibition weaves a narrative of the artistic work and techniques of three artists born in the Majerski family, the progenitor of the family – sculptor Ferdynand Majerski, his son – architect Stanisław Majerski and grandson – Zygmunt Majerski, also an architect.

Ferdynand Majerski (1832-1921) developed his artistic skills and technique for decades in his own studio located in the city of Przemyśl. He carried out restoration of monuments, but first of all he created elements of the interior design for the Roman rite churches, Orthodox churches and synagogues. Within the scope of his activity, he also made tombs and tombstones as well as stone and wooden architectural details. His works can be found in the Wawel cathedral in Cracow, in both cathedrals in Przemyśl, the Lviv cathedral and dozens of churches belonging to religious orders. The material exhibited here shows the artist, his studio and designs connected with the sacred art of the Roman Rite of the Catholic Church, and is often juxtaposed with the completed and implemented works.

Stanisław Majerski (1872-1926) – the first architect of the future three generations of architects in the Majerski family (the father of Zygmunt Majerski), was a graduate of the Lvov Polytechnic School, the Faculty of Civil Engineering. He

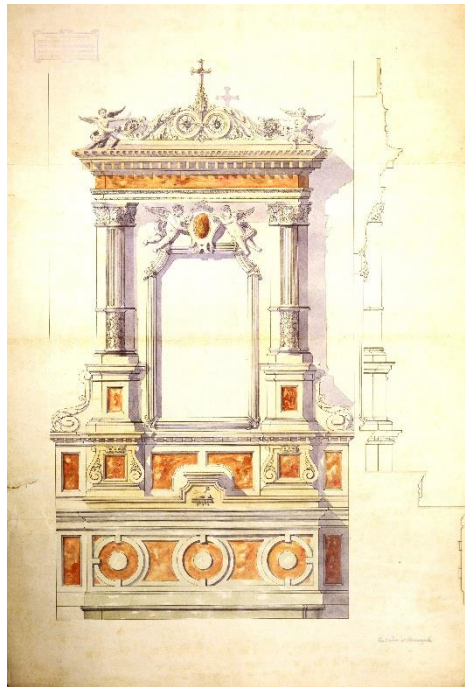
continued his studies abroad in Italy, Dresden, Munich, Budapest, Vienna and Prague. Having built his career in Lvov (present-day Lviv) for several years, he settled in Przemyśl, where he co-ran the firm, set up by his father. He continued the family business by developing his own artistic work in the field of architecture. Apart from other factors, it is thanks to a multiannual cooperation with the Przemyśl bishop, Józef Sebastian Pelczar (declared a saint), and many religious orders that Stanisław Majerski's numerous architectural works and interior designs became an inherent part of the sacred art of the epoch of Galicia and interwar Poland. Stanisław Majerski's artistic work is shown at the exhibition in the form of designs, for instance, of the Roman Catholic cathedral in Przemyśl or "Księżówka" building in Zakopane. The exhibition shows sacred architecture as well as public utility buildings and residential housing.

Zygmunt Majerski (1909-1979) – a Lvov-Gliwice-Wrocław architect, graduate and assistant lecturer at the Faculty of Architecture of the Lvov Polytechnic University. He also worked at the Department of Regional Urban Planning of the Municipal Management of the City of Lvov (1937-1938). Together with his friend, architect Julian Duchowicz, he was the prizewinner of many pre-war architectural contests (1st prize: Spring and Spa House in Morshyn - 1934, Spring and Spa House in Jurata - 1935, the Marshal Józef Piłsudski Sports District in Lvov - 1936, Sanatorium in Skotniki near Łódź - 1937; and others). He actively participated in the September Campaign – the 1939 defensive war. After the liberation he stayed in Italy from 1946 to 1947, where he designed and implemented the Cemetery of the Fallen Polish Soldiers from the 2nd Corps in Bologna. He came back to his home country in 1947 and settled in the city of Gliwice. He undertook didactic and scientific work at the Faculty of Building Engineering at the Silesian University of Technology. He also worked as the chief designer for the "Miastoprojekt" design studio in Katowice and Gliwice. Due to the closure of the Department of Architecture at the Faculty of Building Engineering at the Silesian University of Technology, he continued his academic work at the Wrocław University of Science and Technology. In 1964, he returned to Gliwice and took the chair at the Department of the Design of Residential and Services Buildings at the Faculty of Building Engineering at the Silesian University of Technology, where he was appointed the Dean of the Faculty, and later the Head of the Institute of Architecture and Urban Planning. In 1977, he became the first Dean of the new, independent Faculty of Architecture (1977-1978). Zygmunt Majerski continued his collaboration with Julian Duchowicz, which was very successful and resulted in many prize awards. The two architects designed and implemented the following prestigious architectural objects: Youth Palace in Katowice (1951), the edifice of the Faculty of Mining Engineering of the Silesian University of Technology (1950-

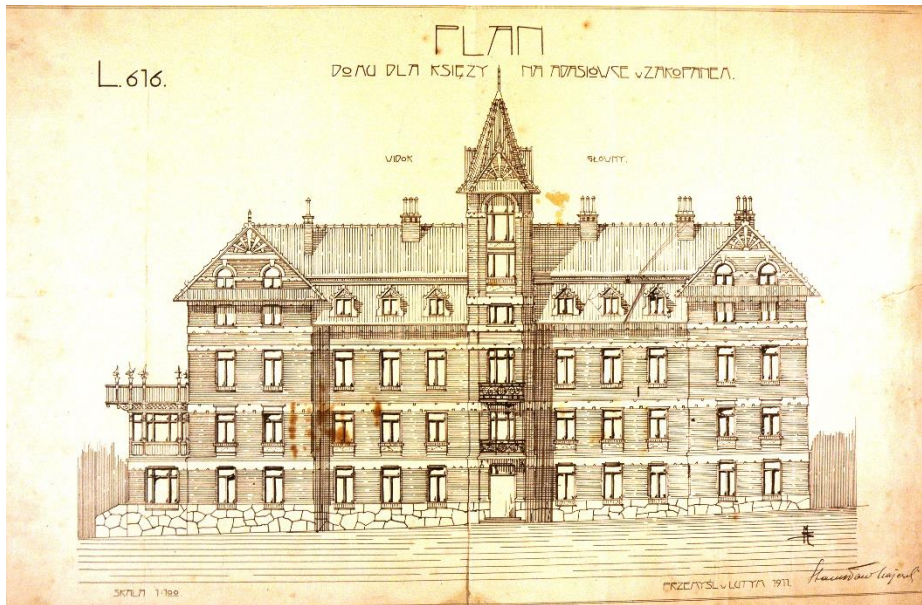
1953), House of Music and Dance in Zabrze (1954-1960), the Stawowa Housing Estate in Gliwice (1960-1968), Theatre in Opole (1961-1964) and others. In recognition of his achievements and contribution to the development of contemporary Polish architecture, in 1973, he was given, together with Julian Duchowicz, a national merit award - SARP.

Prof. Zygmunt Majerski is deemed to be one of the founding fathers of the Silesian school of architecture. He educated many generations of graduates from the Lvov Polytechnic University, the Silesian University of Technology as well as the Wrocław University of Science and Technology. His graduates still pursue the ideas and concepts instilled into them in their own artistic work.

The exhibition presents some designs from his rich artistic portfolio.



II.1 S. Majerski, Przemyśl, Roman Catholic cathedral, the design of St. John the Baptist altar piece, the Dąbrowskis'-of-Żołynia Collection; Photo by B. Podubny.



II.2 S. Majerski, the design of "Księżówka" building in Zakopane, the Dąbrowskis'-of-Żołynia Collection; Photo by B. Podubny.



II.3 Z. Majerski, The Cemetery of the Fallen Polish Soldiers from the 2nd Corps in Bologna; Photo by R. Nakonieczny.

ECO DESIGN - SUSTAINABLE DESIGN CONCEPTS AND IDEAS

Curators: Beata Kucharczyk-Brus, Natalia Bąba-Ciosek

The ECO design exhibition is highlighting the multifaceted problems of design related to the idea of sustainable development and contemporary environmental and climate policy. Exhibited works explore and respond to social and ecological issues through the use of community-led initiatives and local authorities participation as well as students and designers creativity.

The issue of ecologically intelligent cities and the potential of their inhabitants has become the basis for identifying four problem areas that constitute the main core of the presented exhibition. These include: [1] presentation of artistic and design works carried out as part of the University–Municipality cooperation, [2] presentation of the upcycled furniture projects and their implementations, [3] presentation of lighting fixtures made of recycled materials, as well as [4] presentation of new concepts of hotels and colonies for insects.

[1]

The scope of this part includes artistic and design studies in the field of graphic presentation, exhibition and educational opportunities related to the idea of segregation as well as knowledge of recycling and waste management used by the Waste Management Company in Gliwice. The work uses tools based on the research by design method, supported by the creative potential and selected artistic strategies. Individual tasks carried out in problem groups with the participation of students. The issues raised are currently very important because in the environmental dimension, the proposed concepts have a positive impact on sustainable development, as they comply with at least one of the 4R principles (reduction, reuse, recycling, repair).

[2]

The student workshops carried out at the Faculty of Architecture were aimed at drawing attention to the possibility of treating old, unnecessary, partially used and intended to be thrown away pieces of furniture as a source of material with great creative potential. Nowadays, interior design elements are very often

replaced by users as a result of following the fashion. They end up in the trash as bulky waste, which is basically not a subject to recycling processes. However, their form, representing the design of the bygone era and the material from which they were made, which is usually a durable, natural material such as wood or plywood, provide many opportunities for reuse and for creative transformation into an individual, unique element of interior equipment. Especially friendly items for upcycling are: chairs, stools, tables, shelves and other small pieces of furniture that can be used for many years after processing, instead of being destroyed and attached to a mountain of garbage in the landfill.

[3]

How can you do anything with anything? You can - creating products using discarded materials, producing tasteful and functional objects for daily use like lighting fixtures! As the student works show, lamps can be made of various materials or elements that used to serve completely different purposes and performed a different function. Lamps, lamps, lamps of all kinds: large, small, brightly illuminated or giving mood light, monochrome, single-material or multi-colored, made of many materials combined in a quite surprising way. They can be created from virtually anything - fabric, paper, yarn, metal, wood, cuttings, scraps, pieces intended for rubbish, and even from potentially non-ecological waste such as plastic cups or other plastic packaging that go straight to the trash. Eco-friendly lamps made from recycled non-eco materials and this way the material gets a chance for a second life for the next few years.

[4]

Referring to the great amount of species at risk of extinction, as well as remaining in the current stream of supporting the natural environment, concepts, designs and realizations of a number of different houses for insects were completed as a student tasks. As a result of the design process, the a specific type of outdoor furniture was created and designed to encourage insects to thrive, nurturing biodiversity in cities and humanize urban spaces.

The presented insect hotels are hospitable to ants, beetles, and ladybugs and, what's more, they found their place on the campus of the Silesian University of Technology.



Poster: *Twisted on segregation*
 Author: Patrycja Bujakowska



Exhibition design for the Waste Management Company in Gliwice
 Author: Agnieszka Pilarska



Mobile exhibition design: *Waste life cycle*
 Authors: Aleksandra Gwiżdż and Aleksandra Mróz



Furniture upcycling: A chair, a lamp and a bedside cabinet
Authors: Adrianna Wechowska, Patrycja Ziółkowska and Zofia Bryła



Lighting fixture: Oyster
Author: Natalia Kuna

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What are our cities like? How do we feel in the streets hiding our faces behind our masks? Where are we going? What do we want? What can architecture offer us in this difficult time? Or maybe its shape depends on us?

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Dr hab. Eng. Arch. Beata Komar, Prof. of SUT