# The list of supervisors at the Faculty of Architecture

### dr hab. arch. inż. arch. Magdalena Belof magdalena.belof@pwr.edu.pl

### • Planning Theory and Practice:

- a. Theoretical issues related to history and theory of planning in socio-economic perspective.
- b. Comparative studies (including international perspective) related to planning system, methods and approaches.
- c. International planning cooperation.

### • Urban Planning and Design

- d. Contemporary and innovative approaches to urban planning and design.
- e. Studies on urban structure elements and urban transformation.
- f. Human dimension of urban planning.
- g. Lower Silesia in planning and urban design perspective.

### dr hab. arch. Roman Tarczewski roman.tarczewski@pwr.edu.pl

- Contemporary Architecture:
  - a. Biomimetic in architectural design and analysis of structural systems.
  - b. Shaping of structural systems in contemporary architecture.
  - c. Design of unique architectural forms.
  - d. Design by research.

### prof. dr hab. inż. arch.Marzanna Jagiełło, dr inż. arch.Tomasz Głowacki <u>marzanna.jagiello@pwr.edu.pl</u> , <u>tomasz.glowacki@pwr.edu.pl</u>

- Contemporary Architecture:
  - a. Theory of architectural composition.
  - b. Pro-ecological housing architecture.
- Landscape design
- Theory and history of architecture and art
  - a. Connections of architecture with fine arts.

## prof. dr hab. inż. arch. Rafał Czerner, dr inż. arch. Barbara Widera

rafal.czerner@pwr.edu.pl, barbara.widera@pwr.edu.pl

- Theory and history of architecture and art:
  - a. Architectural theories of  $20^{\text{th}}$  and  $21^{\text{st}}$  century.
  - b. Correlations between architecture and fine arts including fashion and costume design.
  - c. Relations between nature and architecture.
- Contemporary architecture
  - a. Contemporary architecture and its creators.
  - b. Sustainable development in architectural practice.

- c. Bioclimatic architecture.
- d. Pro-ecological design.
- e. Biological architecture.
- f. Biomimetics and bioinspiration in architecture.

#### • Regional architecture

- a. Lessons from vernacular architecture in contemporary building.
- b. Natural ventilation / cooling / heating techniques in regional architecture.

#### • Landscape design

a. Blue and green areas in correlation with the built environment.

### dr hab. inż. arch. Jacek Kościuk jacek.kosciuk@pwr.edu.pl

#### • Theory and history of architecture and arts.

a. History of ancient and early medieval architecture in the eastern part of the Mediterranean Basin.

- b. History of pre-Columbian architecture in South America.
- c. Ancient buildings technologies and materials.

#### • Research, conservation and revalorisation of architectural monuments.

- a. Non-invasive methods in research and reconstruction of historic buildings.
- b. Terrestrial and aerial 3D laser scanning.
- c. Terrestrial and aerial RGB and multispectral photogrammetry.

d. Virtual Reflectance Transformation Imaging and Polynomial Texture Mapping in rock art.

e. Virtual 3D reconstruction and 3D printing in research and reconstruction of historic buildings.

f. Metrological studies on ancient architecture.

g. Conservation and protection of archaeological sites and ancient or early medieval architecture in the eastern part of the Mediterranean Basin.

h. Conservation and protection of historical buildings and archaeological sites in South America.

#### • Design methods

a. Parametric design.

### dr hab. inż. arch. Krystyna Kirschke, dr inż arch. Andrzej Legendziewicz krystyna.kirschke@pwr.edu.pl; andrzej.legendziewicz@pwr.edu.pl

- Theory and history of architecture and arts.
  - a. Medieval, renaissance and baroque residences in Lower Silesia.
  - b. Medieval sacred architecture in Lower Silesia.
  - c. Modern window and door woodwork (from the 16th to the beginning of the 20th century).
- Research, conservation and revalorisation of architectural monuments
  - a. Restoration of Old Town urban complexes in Lower Silesia and Poland after 1989.
  - b. Methods of exposition of the underground relics of monuments buildings.
  - c. Ways of exposure of historical stratifying and details on facades and interiors.

### dr hab. inż. Arch. Marcin Brzezicki marcin.brzezicki@pwr.edu.pl

- Contemporary architecture
  - a. factory of the future, Industrie 4.0, vertical farms, robotics, modularization, industrial architecture, spatial and functional analysis, lightweight cladding design, analysis of factors influencing the evolution of industrial buildings;
  - b. prefabrication, standardization, high-tech prefabrication (standardization of the production process resulting in a unique product), 3d print on an architectural scale;
  - c. architecture for the automotive industry; car dealership, automobile repair shops, automatic parking (architectural aspects);
  - d. bionics and biomimetics in architectural design, natural patterns in architectural design, architecture inspired by nature;
  - e. application of glass in architecture, double glazed façade, double leaf façade, greenhouse glazing, state-of-the-art coating technologies, transparency in architecture, adaptive façades (façade which adapt to environmental conditions).

### prof. dr hab. inż. arch. Ewa Łużyniecka ewa.luzyniecka@pwr.edu.pl

• Interdisciplinary research on historic architecture using modern analytical methods

dr hab. inż. arch. Wojciech Brzezowski, em. prof. nadzw. PWr. wojciech.brzezowski@pwr.edu.pl

- Research, conservation and revalorisation of architectural monuments
- Theory and history of architecture and art a. History of gardens
- Research, conservation and revalorisation of architecture
  - a. Greenery in the historic space