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**Politechnika Śląska w Gliwicach**

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**Tytuł pracy doktorskiej:**

Zielone dachy - elementem kształtowania środowiska człowieka.

**The title of the doctoral dissertation:**

Green roofs - an element in shaping the human environment

**Abstract:**

The increasingly perceptible change in the climate due to anthropopression has led to a growing interest in issues related to green architecture. Green roofs as an environmentally friendly technology for shaping the fifth façade is becoming an important element of the building both in the context of environmental and climate protection measures as well as improvement of human living environment conditions in urban areas. Buildings integrated with greenery as a functional utility and environmental organism can help with solving the problems of modern civilization. Green roofs, in addition to their impact on improving the aesthetics of the city and having a beneficial effect on improving the city's climate, can effectively contribute to solving a number of environmental, social, health and food problems for city residents.

The search for ways to use rooftops as a new space for human life with access to arranged greenery as areas of rest and recreation seems indispensable in the near future. Challenges of modern urbanization and the need for urban densification, the greening of roofs as newly designed, but also existing space, will become a necessity.

The thesis of the paper is as follows:

1. green roofs are part of the human living environment.
2. green roofs in the city, in addition to aesthetic functions, have recreational, health and social functions, as well as environmental, ecological and climatic functions.
3. green roofs are green areas.

There are also 13 supporting theses.

The dissertation presents the current state of research on the topic undertaken. The history of the use of greenery on roofs from ancient to modern times is presented. Contemporary technologies of green roofs and their application were discussed. The issue of urban greenery in urban planning of the 20th and 21st centuries was presented, as well as the role and functions of green areas in the city. The benefits of green roofs and roof gardens were characterized, and the role they can play in green tool systems in the city was presented. The theory of biophilia and its impact on human well-being and health is discussed. The paper also includes research sheets from in-situ studies conducted. The summary and the final conclusions formulated confirm the validity of the theses set forth in the work.

**Keywords:**

green roof, rooftop gardens, human habitat, greenery, green spaces, greenery in the city, city