In studying the urban environment as an experience of a city, an important role is played by the socio-psychological aspect, which is closely connected with urban design and architecture. Alongside this, other characteristics of the urban environment that affect people's perception of space are also important. Studying green building envelopes and their impact on the outdoor environment is difficult because most qualitative aspects of such elements are not directly measurable and therefore their impact is difficult to determine accurately. However, it is clear that the facade is the part of the building envelope that is strongly present in people's field of view because it is mostly part of public space and its visual presence affects the perception of space, its recognizability, and attractiveness in terms of use.

The research explores the green walls and their impact on the urban environment studied - on micro urban scale. The communication of green walls is a metaphor that addresses this topic in the sense of both the exchange of flows or processes in the physical environment and expressiveness. All this influences people, their perceptions, and indirectly their quality of life in the urban environment. The challenge is to combine research on social-psychological and microclimate aspect and different methodologies. The main research question is to what extent can green walls contribute to the quality of urban open spaces in the cities of temperate climate. The identification of possible criteria for measuring the impacts of green facades will be explored.

Part of the study focuses on the incidence of vertical greening: the public perception and experience of urban space. Different vertical greening systems have different appearances because of their physical characteristics (technical support elements, vegetation, etc.). Because vertical greening is always connected to build structures and surrounding open space, the study explores how people perceive vertical greening in the urban environment and whether there is a difference in peoples' perceptions between spaces with and without vertical greening facades. A visual preference survey was utilized in the first part as a starting point for selection of urban spaces to be used in the second part, focusing on microclimate conditions in selected areas and comparison and evaluation of subjective and objective indicators.

Part of the study - visual preference survey - green walls and perception of space