URBAN MAPPING

Aleš Švigelj

ales.svigelj@fa.uni-lj.si

University of Ljubljana, Faculty of architecture

Urban mapping is a graphic analytical method used to record, interpret and communicate the key characteristics of a specific urban area. It combines observation, spatial analysis and interpretation, and serves as a fundamental tool in urban planning, architecture and spatial design. The primary purpose of urban mapping is to document both the physical and social dimensions of space in order to reveal patterns, relationships and dynamics that are not immediately obvious. The collected information can then be used as a foundation for spatial strategies, urban renewal proposals, planning policies or community-based initiatives.

Urban mapping can present both classical spatial information, such as land use, morphology or traffic connections, as well as more specific thematic data related to social behaviour, safety, accessibility or public life. Because data are displayed graphically, mapping enables comparative assessment over time and supports both quantitative and qualitative research approaches. Depending on the scale and objective of the study, mapping can be conducted using simple hand-drawn sketches, overlay methods, or advanced digital tools and GIS-based applications.

The mapping process begins with preliminary research, which includes studying publicly available spatial documents, historical sources, maps, photographs and other online resources. This phase enables familiarization with the site and its historical development, revealing influential factors that have shaped the space. In cases where mapping engages local residents or communities, questionnaires and structured interviews are used to gather opinions, preferences and concerns. These surveys provide qualitative and quantitative data that support planning decisions and ensure socially responsive design approaches.

Urban and safety walks are an essential part of field-based mapping. They include a systematic walk through the study area during which observations are recorded directly on maps or in field notes. These walks help identify spatial qualities, dysfunctions, safety risks and potential opportunities for improvement. The next step in the process focuses on the morphology of space, analysing the form and structure of urban elements such as street networks, building types, blocks and open spaces. Understanding morphology allows for the recognition of spatial identity and development patterns.

Traffic connectivity mapping examines how well different parts of the area are linked and how efficiently users can move through space. This includes analysing street hierarchies, pedestrian routes, public transport connections and the safety of mobility networks. Mapping also identifies open public spaces, such as squares, parks and courtyards, and evaluates their function, design characteristics and relationship to the surrounding built environment. The mapping of programme distribution shows the types and concentrations of activities in the area and reveals how land use influences urban dynamics.

Accessibility assessment plays a key role in inclusive urban design. It evaluates how easily different groups of users can reach essential services and activities. This includes identifying physical barriers that prevent equal access, especially for vulnerable groups such as the

elderly, people with disabilities, parents with strollers or visually impaired individuals. Behavioural observation complements this by documenting how people actually use space, how they move, interact and occupy public areas over time. As noted in research on behavioural maps and GIS-based spatial evaluation, such observations can reveal informal patterns of use and social behaviour that influence the redesign of urban environments.

The final dimension of urban mapping is safety analysis, which focuses on emotional and visual perception of safety within public environments. By mapping factors such as lighting, visibility, cleanliness, surveillance and potential threats, planners can identify locations with increased vulnerability and propose design solutions to improve spatial safety. The SAFE mapping approach integrates these elements into a comprehensive framework for urban analysis.

In conclusion, urban mapping is not simply a technique for recording space but a complex methodological process that integrates research, analysis and interpretation. It supports evidence-based planning and provides a foundation for sustainable and socially responsible urban development. By combining spatial data with human experience, mapping helps reveal how cities function and how they can be transformed to better serve their communities.