



IVANA BANOVIĆ ĐORĐEVIĆ

CRITERIA FOR PLANNING AND DESIGNING URBAN LIBRARIES AND FOR CREATING A NEW OPEN PUBLIC SPACES NETWORK

KRITERIJI ZA PLANIRANJE I PROJEKTIRANJE URBANIH KNJIŽNICA I ZA STVARANJE NOVE MREŽE OTVORENIH JAVNIH PROSTORA

IVANA BANOVIĆ ĐORĐEVIĆ (Kruševac, 1977) graduated from the Faculty of Architecture at the University of Belgrade in 2002, and has been a Ph.D. student at the Faculty of Architecture University of Zagreb, since 2018. She is a co-founder of Vemex Projekt Design, based in Belgrade, where she works as the lead architect.

Supervisor: Prof. Bojana Bojanic Obad Šćitaroci, Ph.D.

Members of the committee:

Prof. Bojan Baletić, Ph.D. (president)

Prof. Emeritus Tihomir Jukić, Ph.D.

Assist. Prof. Jasenka Kranjčević, Ph.D.

Date of public defense: April 4, 2024

The dissertation consists of two parts (281 pages of text + 257 pages with catalogues) with 15 chapters, 761 footnotes, 117 bibliographic units, and 112 units from urban planning documents and internet sources.

Throughout the first two decades of the 21st century, urban library projects in European and North American cities played a significant role in shaping their global image and identity. These libraries have become iconic symbols, inspiring cities worldwide to recognize the immense potential of library projects as a powerful tool for urban transformation. The library/city relation dates back to the beginning of history. It has evolved through history, depending on socio-political and technological impact factors.

The dissertation relates the urban library to urban landscape, providing a comprehensive study of the library/open public space relation and including its role in creating a network of open public spaces. The development of this relation over time addresses the essence of this objective. The research consists of two parts, including 76 historical and contemporary libraries in the context of their cities. All library examples are analyzed on three scales – in the context of the city associating the library project to urban planning, in the relation to the open public space associating the library to the urban design and qualitative planning, and in the context of the library building referring to architectural design.

The first part is a comparative analysis of all library examples, delivering a comprehensive review of the urban library functions and attributes. The library's attribute of "being public" is recognized as a critical attribute in defining the relation between the library and the city. It is represented in the urban library's architectural features and the library/open public space relation.

The first part of the research identifies types and development of the library/OPS relation, sorted into eight basic groups: library as an OPS façade; park library; collapsed spaces of the library and OPS; library enclosing a public square; library as the centerpiece in a public square; library in networking OPSs of different character; mobile library, micro library, and dispersed library concept; combination of basic types.

The urban library is defined by the library space in the urban fabric; the duality of library function, in terms of library service and the li-

brary as a tool in urban transformation; as well as its relation to the open public space.

In addition to this, the urban library network in the urban landscape is recognized to be a powerful tool in the urban transformation. Therefore, the second part of the research was based on analyzing case studies of libraries in Birmingham, Barcelona and Helsinki, their relation to urban landscape transformation, the urban library network, and the network of open public spaces. It results in determining two basic types of urban library networks in the urban landscape.

Type 1 of the urban library network consists of the central library and branch library units. The central library is a part of the strategic urban plan and an iconic building with intensive OPS relation, while branches are less relevant in the urban landscape context.

Type 2 of the urban library network consists of branches of the same character that are of high architectural value, intensive interaction with the open public spaces and relevant to the process of urban landscape transformation.

The urban library is redefined as a unit of library space (physical and virtual) as a constitutive part of the OPS in the urban fabric, and the duality of library function in terms of the library service and the library as a tool in the urban transformation process. Defined in this manner, the urban library can be a part of the network of urban library/ OPSs units and the existing network of OPS in the city, creating a whole new layer of the urban landscape. This network shall be determined as network+. As the urban library is both a node and a connector in the network+, and an active element in the processes of urban transformations (infrastructure), the network+ becomes infrastructure in the city.

This research detected the existing criteria for planning and design of urban libraries, based on urban library attributes, functions, and types of library/OPS relations. The existing criteria are supported and complemented with the case studies of the libraries in the second part of the research, and are sorted into seven groups: criteria for functional planning and design; criteria for upgrading library functions;

criteria for sustainability; criteria for accessibility; criteria for the location selection; criteria for the continuity of heritage; criteria for creating new centralities.

The redefinition of the urban library has introduced new criteria for planning and designing urban library and for creating a new open public spaces network that can be summarized as:

- criteria for planning and designing the urban library as a constitutive part of the library/OPS unit at physical and functional levels,
- criteria for planning and designing the library/OPS unit as a constitutive element of the network of OPSs,
- criteria for planning the library/OPS unit as a part of the urban library network,
- criteria for creating flexible and open network+/infrastructure,
- criteria for the library location selection in supporting the library character as a node and a connector in the urban fabric.

The set of new criteria produce the method for transforming the urban landscape by adding a new layer of urban landscape and a new network of OPSs in the city, created by planning and design of the UL defined as part of the network+/infrastructure. This method supports urban development toward polycentric urban systems. It is applicable to both monocentric and polycentric urban and library systems in order to develop new sustainable, flexible, responsive, and resilient OPSs networks and urban landscape in a sustainable manner.

This thesis offers listed and chronologically sorted library examples that can be used as a material base for further research on urban libraries. In addition, the dissertation opens up space for further research in terms of possible application of the research method to other public spaces and buildings in cities. Considering the research on the historical relationship between the development of urban libraries and open public space and urban landscape, there is room for exploring the significance of urban library projects in the emanation of the urban landscape.