Doctoral Dissertation

Alternative method for establishing parameters of new buildings.

mgr inż. arch. Anita Wszolkowska – Szewczyk
Promoter: prof. dr hab. inż. arch. Waldemar Marzęcki

Abstract

The spatial planning has accompanied human communities since the dawn of time. From time immemorial, spatial development was linked to the governing power and a system of dosandsdon’ts which determined the possibility to shape the architectural space and form. Each of the past periods developed their own system of laws which defined conditions for the spatial order.

At the moment, in Poland, the relevant law is defined by the Spatial Planning and Development Act which is considered the basic law next to the Construction Law. The Spatial Planning and Development Act of 27 March 2003 (JoL of 2017 item 1073) determines procedures used to designate land for specific purposes, and ways and conditions for developing those areas.

A wider analysis shows that incoherence of current regulations and laws and the planning permitting procedure introduces a disharmony in new development and does not promote logical interpretation of the spatial order. According to the author of the dissertation, the laws and methods of determining development conditions frequently require us to assess conditions for new buildings in a schematic or mathematical manner.

According to the Spatial Planning and Development Act, the ‘defining of the designation of land, its configuration, public purpose, investment and ways and conditions for development should be done in the master plan’. However, in case no master plan has been established, ways and conditions for development are defined in a planning permit, in other words, an administrative decision on land development conditions. The Act and the regulation linked to it define rules and guidelines for urban planners and architects as regards drafting the planning permit. The new term of ‘analysed area’ and ways of designating such an area have gained a new meaning. Such an area should be marked in a copy of a map attached to the planning permit application. The analysed area and its assessment contribute to the determining of conditions for land development.

Errors in mathematical calculations used in analyses cause that parameters adopted for new buildings are incorrect from the point of view of the urban order in a specific area of the city/rural area. Consequently, those parameters become binding as regards the analysis of neighbouring plots and further administrative decisions.

The dissertation highlights an alternative method for determining parameters of new buildings. The proposed solution complements current urban analyses based on the Spatial Planning and Development Act. It should be treated as independent from future legal framework and the
method aims at indicating appropriate procedures leading to determining of guidelines for urban development with due respect to urban composition rules.

The dissertation promotes the development of urban planning methods that could improve conditions shaping spatial order and preventing disharmony of that space. Considering possible changes of the spatial planning law, the author assumes that the nature of findings and guidelines resulting from the analyses will be universal.

The dissertation presents the method for examining parameters and features of buildings while assessing the urban interior's attribute and factor determining urban planning processes. Firstly, the theoretical part describes the research question and its assumptions. Chapter one contains the research question, goals of the dissertation, thesis and the scope. The author presents research methods and techniques, and the current status of research on the topic.

Chapter two explains the relationship between the urban analysis and legal framework pertaining to the urban composition and form. The chapter also discusses conditions for spatial order and postulates of sustainable designing, and their influence on establishing parameters of new buildings. Further analysed are the urban context and form, and identity while establishing parameters of new buildings. The chapter analyses the development of cityscape against the procedure defining conditions for development and parameters of new buildings.

Chapter three focuses on new spatial structures and delimitation of the area to be analysed. The author analyses formal and legal methods for setting the area that is going to be subjected to the urban analysis. This part presents the author’s examination of the designation of the area and conditions pertaining to three analyses of that area. Additionally, the author discusses the goal and assumptions of an alternative method used for establishing parameters of new buildings.

Finally, chapter four contains the presentation of further research plans, examples and analysis findings, as well as discussion of selected research areas. The author also presents three cases of areas examined and findings of their analysis.

The author has studied a real area of a city. The research covers selected parts of the city space, i.e. undeveloped and developed plots. Those plots have their individual characteristics and spatial values. Features and attributes of their surrounding and neighbourhood are interlinked with the location in terms of their architecture and composition. While presenting the research methodology, the author shows the relationship and components studied in charts and figures.

The method developed by the author is based on a combination of those guidelines. The assessment of the city space describes in a clear manner the selection of new parameters of buildings combined with the evaluation of the composition in a given location and conditions in neighbouring areas. The assessment of the parameters from the suggested three
points of view may highlight possible threats of distorting the city space by adopting parameters that deviate the form or the architectural composition. Professional experience of the author makes her aware that once parameters of new buildings are set they consequently determine parameters of other buildings. For this reason, it is important to eliminate certain qualities at an early stage of urban assessment and studies. The elimination aims at highlighting qualities that may have a negative impact on perception. The goal of the exercise is to discontinue the support of those qualities as contradictory to the spatial order.

The proposed method is more analytical than mathematical, since it presents possible directions of study and observation of mutual relations between parameters and qualities of buildings in immediate and further environment. Once used as a tool, the method highlights relations in space by juxtaposing and balancing several issues of the landscape, urban and historical analyses of the city space. Thus, it seems justified to develop multifaceted analysis of a given space. Proposals made by the author may contribute to widening the scope of the urban analysis at the stage of a planning permit, and can be useful while developing the architectural and urban concept design for new buildings.

The goal of the analysis is to emphasise the schematic nature of previous analytical methods used for establishing conditions for land development as a reason of disharmony in city planning and new buildings. It also points to the fact that previous methods fail to ensure harmonious urban space. The thesis proves that the use of excessively general and schematic methods for delimiting the area examined and, at the same time, neglecting the importance of the urban composition may lead to false results of the analysis.

In the opinion of the author, an appropriate analysis of a given location and careful observation of urban conditions should contribute to a better urban and architectural form of new buildings. This phenomenon has been highlighted in practice while analysing various locations in small towns. In the doctoral dissertation, the question is examined based on three cases and specific locations of a city. The specific nature of those locations and their surroundings help distinguishing individual steps included by the author in her methodology. Conclusions presented are mostly universal and can be applicable to other cities as well.

The author aimed at examining methods currently used for the analysis and shaping of the urban space through conditions for development, as well as examining of the actual impact made by the law and regulations on the city space. Therefore, the analysis covered current and proposed legal framework pertaining to conditions of development. At this stage, the author focused on examining neighbouring plots from various angles.

Techniques of examination and methods of establishing parameters for new buildings developed by the author can be an alternative and complement for determining new development in the actual planning process.
The author aimed at creating an algorithm of 'measuring space' as a methodology facilitating the process of determining parameters of new buildings based on the appropriate spatial order and the principle of sustainable development. In the dissertation, the author distinguished three possible assessments of the composition in the area concerned. While assessing an urban interior, the examination of parameters and qualities of buildings can be used for determining the course of further analysis in the urban planning process.

The dissertation proved the thesis, namely that the previous schematic approach of analytical methods used to establish conditions for development was the cause of divergent planning decisions made as regards new buildings and failed to guarantee a harmonious development of the urban space.