Doctoral Dissertation

Alternative method forestablishing parameters of new buildings.

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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 ofdosanddon'ts which determined the possibilityto shape the architectural space and form. Each of the past periods developed their own system of laws whichdefinedconditions 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 proceduresused to designate land for specific purposes, and ways and conditionsfor developing those areas.

A wider analysis shows that incoherence of current regulationsand lawsandthe planning permitting procedure introducesa disharmony innew developmentand does not promote logical interpretation of thespatial order. According to theauthor of the dissertation,thelaws and methods of determiningdevelopment conditions frequently require us to assess conditions for new buildings in aschematic or mathematical manner.

According to the Spatial Planning and Development Act, the 'defining of the designation of land, its configuration, public purpose investment andways and conditions for development should be done in the masterplan'.However,in case no masterplan has been established, ways and conditions for developmentare defined in a planning permit, in other words anadministrative decision on land development conditions. The Act and theregulation linked to itdefinerules and guidelines for urban plannersand architectsas regards drafting theplanning 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 areaand its assessmentcontribute to the determining of conditions for land development.

Errors in mathematical calculationsused in analysescause 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 dissertationhighlightsan alternative method for determining parametersof new buildings. The proposed solution complements currenturban analysesbased onthe Spatial Planning and Development Act. It should be treated as independentfromfuture legal framework and the

method aims at indicating appropriate proceduresleading to determining of guidelines for urban development with due respect to urban composition rules.

The dissertation promotes the development ofurban planning methodsthat could improve conditions shaping spatial orderandpreventing disharmonyof thatspace.Considering possible changes of the spatial planning law, the author assumes that the nature offindings and guidelines resulting from the analyses will be universal.

The dissertation presents the method forexamining parametersandfeatures of buildingswhile assessing the urban interioras anattribute andfactor determiningurban planning processes.Firstly, the theoretical partdescribes the research question and its assumptions. Chapter onecontains the research question, goals of thedissertation, thesis andthe scope. The author presentsresearch methodsand techniques, and the current status of research on the topic.

Chapter twoexplains relationship betweenthe 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, andtheir influence on establishing parametersof 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 ofnew buildings.

Chapter three focuses on new spatial structuresanddelimitation of the areato be analysed. The author analyses formal andlegal methodsfor setting the area that is going to be subjected to the urban analysis. This part presents author's examination of the designation of the area andconditions pertaining to three analyses of that area. Additionally, the author discussesthe goal and assumptions of an alternative method used for establishing parameters of newbuildings.

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 researchcovers 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 interlinkedwith the location in terms of their architecture andcomposition. While presenting the research methodology,the author shows relationship and components studiedin 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 ofbuildings combined with the evaluation of thecomposition in a given location and conditions in neighbouring areas. The assessment of the parametersfrom 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 eliminatecertain 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 discontinuethe support of those qualities as contradictory to the spatial order.

The proposed method is more analytical than mathematical, since its presents possible directions of study and observationof 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 methodsused for establishing conditions for land development as a reason of disharmonyin city planning and new buildings.It also points to the fact that previous methods fail toensure harmonious urban space. The thesis proves that the use of excessively general and schematic methodsfor delimitating the area examined and, at the same time, neglecting the importance of the urban compositionmay 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 conditionsshould contribute to a betterurbanand architectural formof 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 locationsand 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 authoraimed 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 regulationson 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 newdevelopment 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 thecomposition 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 thatthe previous schematic approach of analytical methodsused to establish conditions for development was the cause ofdivergent planning decisionsmade as regards new buildings and failed to guaranteea harmonious development of the urban space.

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