Filip Dubrovski

Filip Dubrovski graduated at the Faculty of Architecture in Skopje in 2009 where he has been working as a Teaching Assistant until 2011. The same year he was awarded the Fulbright Scholarship for Masters in Science studies at the Illinois Institute of Technology (IIT) in Chicago with Specialization in Sustainable New Cities. During the studies he was working as a Teaching Assistant at the College of Architecture, IIT. Filip had the opportunity to have Prof. George Schipporeit, one of the last Mies Van Der Rohe students as his thesis mentor. He recieved special recognition award for completed appartment building at the 2013 Grand Architecture Annual Award in Macedonia. Filip is an excautive board member of the Association of Architects of Macedonia. Currently he is working on his PhD at the Faculty of Architecture in Zagreb.

Design research methodology applied in MSc urban planning city design research and PhD neighborhood social sustainability research

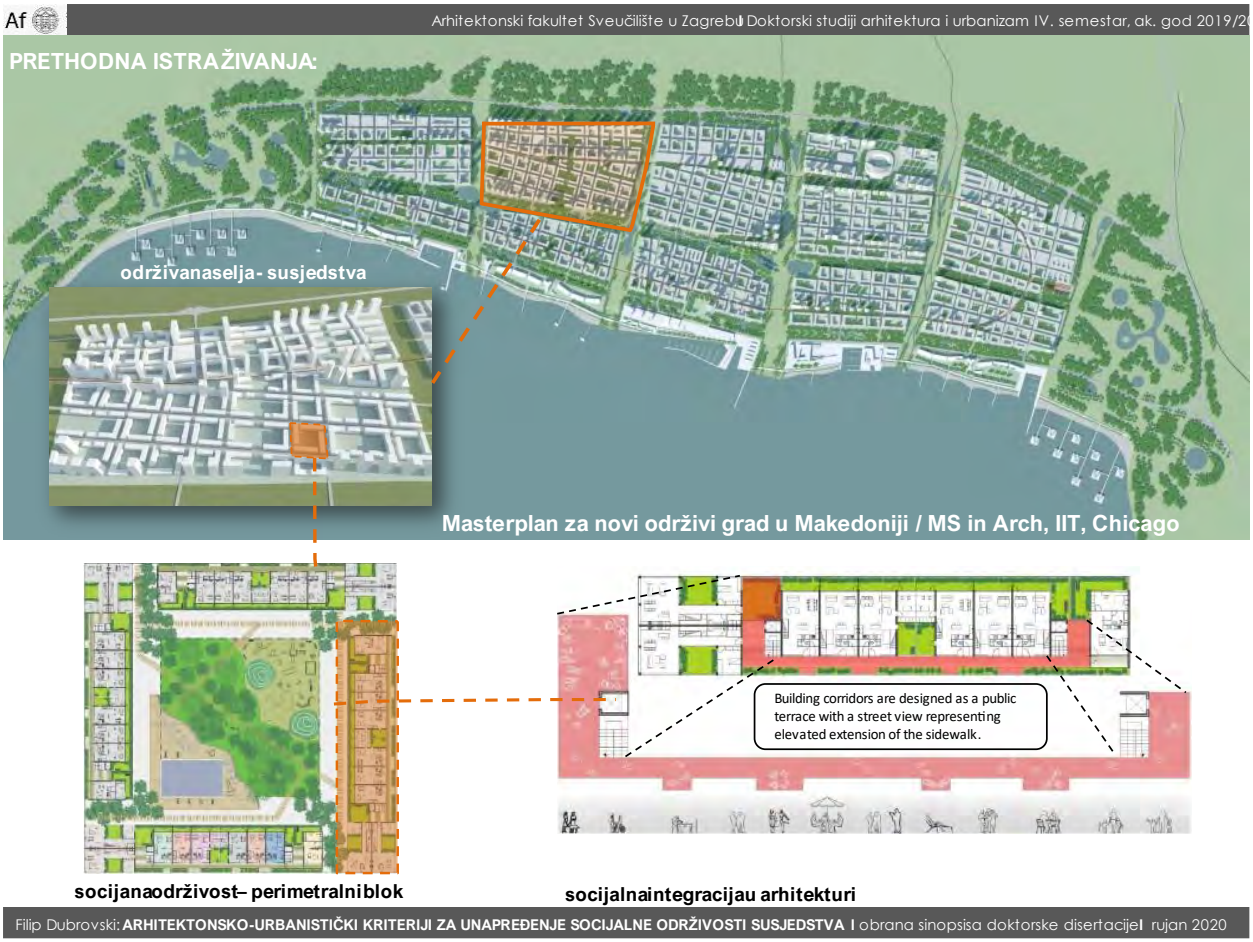
In this expose lays an attempt to deliver goas achieved from completed MSc research thesis and goals set up on an on-going PhD research thesis, both covering fields of urban design, architecture, and sustainability. In each research thesis a design-driven approach contributes significantly to the expected outcome. The PhD research is a focused continuation of the MSc research.

The MSc research was a design-driven research project originated in 2011 on the instituted Master of Science in architecture program for new sustainable city design at IIT, Chicago. The curriculum of the research program was to determine relevant criteria, studies and examples of models that imply sustainability (at all levels: social, economic, and environmental) in urban areas. The second task was to determine an appropriate location as a testing ground as well as to determine its advantages, challenges and problems while using both quantitative and qualitative analytical methods. Establishing that, the design-research methodology was third in action that was used in the testing of the set of criteria and principles that have already been fragmentary or partially proven on existing reference urban morphologies.

In the master research thesis I conducted, selected sustainable principles were comprehensively applied all together at a full city design level. The outcome was a Master of Science thesis project for a new sustainable city on a vacant location with city elements developed up to architecture level. Scientific contribution in this predominantly design-reached 2D-3D model of an urban structure is delivered in the achievements (or not) to combine extensive set of sustainability criteria at city level. The outcome of the program was to open discussion, criticism, and future referencing of the selected sustainability models for future projects and detailed sustainable urban development.

As of that point, ten years later at a different academic level and institution in Zagreb, at the Faculty of Architecture, this research continues more focused at a PhD level. Narrowed down to the also social rather than only spatial determination of the term ‘Neighborhood’, the PhD thesis titled `*Architectural and urban planning criteria for the improvement of social sustainability in neighborhoods*` continues to develop. Provoked by the sudden global pandemic conditions, during which at the same time all neighborhood types were put to intensive testing phase, at all levels and for several months, it was possible to witness up to what level are the living qualitative conditions met to which people are surrounded with. The aim of the research is to recognize the phenomenon of neighborhood as an

inseparable factor of sustainable development. By identifying spatial elements that contribute to the creation of urban sustainability, applying and evaluating architectural and urban planning criteria to the examples of Zagreb's neighborhoods, a sustainable model of urban regeneration could be defined.



In this interdisciplinary research, direct collaboration with social sciences in the methodology appeared to be essential in a form of co-mentoring. With this help, the first part of the research is set to be quantitative analysis. An interview-based data collection will be conducted of numerus neighborhood users' experiences on various neighborhood spatial and social amenities. Then, the prepared questionary form will be upgraded with elements from the design research methodology. Combined with the research topic interview questions, this layout will contain a graphical part with pre-designed conditions and pictures of already existing neighborhood conditions (urban examples) relevant to the topic that are expected to be quantified by each participant.

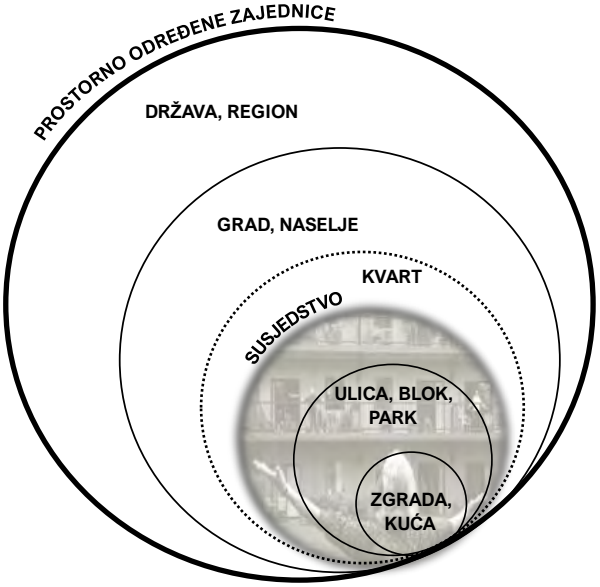
Following the first, secondly planned approach is the qualitative *Grounded Theory*, founded on the bases of conversation data extraction from smaller number of pre-selected community members of various groups. This also will be supported with elements of the design research approach with the same graphical structure mentioned before. In this approach, however, the participants are additionally expected to deliver their own visions of favorable social and urban conditions by hand, if capable, or by afterwards delivery of selected examples from various visual sources. Both methods should deliver data on the level of connection between the social and spatial elements of their surroundings. At this point it is important to determine which spatial urban elements add up to the overall community cohesion, collaboration, and solidarity. In the process, referenced literature neighborhood models form theory and praxis will be combined with the extracted results. This combination should define the social and spatial criteria as an overall outcome.

The doctoral design research methodology is set up to be applied again at the finishing stage. It is proposed that the extruded social and spatial criteria are translated into graphical expression in simple ideogramic or/and preliminary urban design solutions. From there, they could be applied and tested on poor existing socio-morphological conditions in neighborhood parts in Zagreb as an upgrade design proposal that will provoke future discussion and criticism. With the objective, a sustainable model of urban regeneration should be defined.

OBRAZLOŽENJE TEME, pojam SUSJEDSTVO i psihološke granice

1. Neighborhood is not a place; it's a state of mind (Sim, 2019) [6].

2. Susjedstvo je 'socijalna / prostorna jedinica društvene organizacije . . . veće od kućanstva i manje od grada' [18] (Galster, G. C. 1986).



At the end, design-driven research is an inevitable research method in most design disciplines as are architecture, urban design, landscape design, biophilic design, industrial design, and others. This is coming from the nature of the fields themselves. Unlike other research methods, the ability to conduct design-driven research is dependent on a certain level of formal or non-formal education in the field of arts. Research participants carrying this capability can strongly benefit using this methodology as visual testing model which can prove or disapprove thesis effectively. However, research based exclusively on design-driven approach remains one dimensional unless combined with additional methods, preferably form gravitating fields close to the researched topic.