



International
Conference on
Urban Planning



ICUP2020

PROCEEDINGS
Serbia, Niš, November 13, 2020



ICUP2020





International Conference on Urban Planning



ICUP2020

PROCEEDINGS

Serbia, Niš, November 13, 2020

International Conference on Urban Planning

ISSN 2738-0548

3rd International Conference on Urban Planning - **ICUP2020**

Publisher

Faculty of Civil Engineering and Architecture, University of Nis

For Publisher

Dean

Petar Mitkovic, PhD

Editor

Petar Mitkovic, PhD

Co-Editors

Milena Dinic Brankovic, PhD

Milan Tanic, PhD

Aleksandra Miric, PhD

Vuk Milosevic, PhD

Text formatting, prepress and cover

Sanja Jankovic

Vojislav Nikolic

ISBN 978-86-88601-52-8

Circulation

100 copies

Printing

Grafika Galeb Nis

3rd International Conference on Urban Planning - **ICUP2020**

Organized by

Faculty of Civil Engineering and Architecture, University of Nis
Urban Planning Cluster, Nis



Sub-organizers

Serbian Chamber of Engineers



SCIENTIFIC PROGRAM COMMITTEE

Petar Mitkovic, PhD, Chairman, Dean of Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Milan Tanic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Urban Planning Cluster, Serbia
Milena Dinic Brankovic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Vuk Milosevic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Urban Planning Cluster, Serbia
Jasmina Tamburic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Aleksandra Miric, PhD, Urban Planning Cluster, Serbia
Goran Jovanovic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Aleksandar Kekovic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Ljiljana Vasilevska, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Danica Stankovic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Ivana Bogdanovic-Protic, PhD, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Jelena Zivkovic, PhD, Faculty of Architecture, University of Belgrade, Serbia
Aleksandra Djukic, PhD, Faculty of Architecture, University of Belgrade, Serbia
Mila Pucar, PhD, Institute of Architecture and Urban & Spatial Planning of Serbia
Aida Nayer, PhD, Department of Architecture, Effat University, Saudi Arabia
Ali A. Alraouf, PhD, Head of CB, Development, CB and Research Unit-QNMP, Research and Training, Ministry of urban planning, Doha, Qatar
Derya Oktay, PhD, Dean of Faculty of Architecture, Ondokuz Mayıs University, Samsun, Turkey
Karin Hiltgartner, PhD, Department of Spatial Planning, Technische Universität Wien, Austria
Kovács Erzsébet, PhD, ICOMOS, Hungary
Horáček Martin, PhD, University of Technology, Brno, Czech Republic
Carmina Gheorghita, PhD, G.M. Cantacuzino, Faculty of Architecture, Technical University of Iasi, Romania
Michał Chodorowski, PhD, University of Technology, Białystok, Poland
Divna Pencic, PhD, Faculty of Architecture, SS. Cyril and Methodius University in Skopje, North Macedonia
Florian Nepravishta, PhD, Dean of Faculty of Architecture and Urbanism, Polytechnic University of Tirana, Albania
Milena Tasheva-Petrova, PhD, Urban Planning department, Faculty of Architecture, University of Architecture, Civil Engineering and Geodesy Sofia, Bulgaria
Aleksandar D. Slaev, PhD, Department of Architecture and Urbanism, Varna Free University, Varna Bulgaria
Milenko Stankovic, PhD, Faculty of Architecture, Civil Engineering and Geodesy, University of Banja Luka, Bosnia and Herzegovina
Miroslav Malinovic, PhD, Faculty of Architecture, Civil Engineering and Geodesy, University of Banja Luka, Bosnia and Herzegovina
Lorenzo Chelleri, PhD, Chair Urban Resilience Research Network (URNet), Universitat Internacional de Catalunya, Barcelona, Spain

ORGANIZING COMMITTEE

Tanja Obradovic, Chairman, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Slavisa Kondic, Urban Planning Cluster, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Miljana Ignjatovic, Urban Planning Cluster, Serbia
Vojislav Nikolic, Urban Planning Cluster, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Aleksandra Miric, PhD, Urban Planning Cluster
Milica Igic, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Jasmina Tamburic, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Sanja Jankovic, Faculty of Civil Engineering and Architecture, University of Nis, Serbia
Marija Marinkovic, Urban Planning Cluster
Milan Brzakovic, Urban Planning Cluster, Faculty of Civil Engineering and Architecture, University of Nis, Serbia

FOREWORD

It is a great honour and privilege to present to you the Proceedings of the Third International Conference on Urban Planning - ICUP2020, which is taking place online in these uncertain times of coronavirus pandemic. This year's event is scheduled for November 12-13th, 2020 in Niš. The conference is organized for the third time by the Faculty of Civil Engineering and Architecture - University of Niš and Urban Planning Cluster, thus continuing the tradition of being a biennial manifestation of the University of Niš. We believe that the main conference goal is accomplished, since we have once again brought together scholars, researchers, students and professional from all over the world and from the fields of Urban Planning, Urban Design, Architecture, Civil Engineering and related fields.

Having successfully discussed a broad spectrum of planning, design and development issues during the First and the Second ICUP conference, it is now time to focus on the resilience of cities, while trying to shape urban landscape by promoting nature, cultural heritage, technologies and social equity. Topics that ICUP2020 is focusing on this year include, but are not limited to: Nature-based solutions in urban areas, Mitigation strategies for climate change, Cultural heritage in building urban identity, New approaches and concepts in preserving built heritage, New technologies and materials in construction, Social aspects in urban planning and design, Planning, design and development challenges in creating resilient communities, and Links between regulations, urban planning and architectural design.

After the review process, 30 conference papers from various study areas and diverse places in the world are discussed at the ICUP2020 conference. Contributing papers deal with highly topical resilience issues and therefore provide a valuable insight into contemporary urban theory and practice. The presentation of our eminent key-note speaker contributes to an interesting and successful conference, while the scientific contribution from the members of our international Scientific Program Committee guarantees a high quality Book of Proceedings that will inspire future research. I would therefore like to thank all of them, as well as teachers and associates engaged in the technical preparation of these Proceedings.

Given the importance of the topics elaborated at the conference and numerous questions that are raised here, ICUP conference will continue to explore topical issues in urban development for the benefit of our cities. I am pleased to invite all authors from the academic and research community to participate in future ICUP conferences.

See you all at ICUP2022!



Petar Mitkovic, PhD, Full professor
Faculty of Civil Engineering and Architecture, University of Nis
Chairman of the Scientific Program Committee

CONTENTS

THE RESEARCH HISTORY OF SHRINKING CITIES: A CONCEPT OR NOT?	
Branislav Antonić, Aleksandra Djukić	01
URBAN REGENERATION & ARCHITECTURAL RECONVERSION. TWO PROJECTS	
Andrea Zamboni	09
TALL BUILDINGS ARTISTICALLY CONSIDERED? HIGH-RISES AND THE HISTORIC URBAN LANDSCAPE	
Martin Horáček	17
POSSIBILITIES AND BENEFITS OF NATURE-BASED SOLUTIONS IN URBAN REGENERATION OF LARGE HOUSING ESTATES FROM SOCIALIST PAST	
Ljiljana Vasilevska, Magdalena Vasilevska	25
BANJA LUKA URBAN BACKBONE AS THE ARCHITECTURAL STATEMENT OF HISTORICAL DEVELOPMENT	
Miroslav Malinovic	33
THE DEVELOPMENT OF CONTEMPORARY URBAN TRANSPORTATION IN RELATION TO URBAN STREET NETWORK	
Peter Nikolov, Boryana Nozharova	41
SHIFTING FROM SUSTAINABLE TOWARDS REGENERATIVE DESIGN AND DEVELOPMENT IN CREATING URBAN ENVIRONMENTS	
Aleksandra Cvetanovic, Mihailo Mitkovic	49
APPLICABILITY OF POP-UP APPROACH TO FLOATING URBANISM: DEMOCRATISATION OF AQUATORIUMS IN THE CITY OF BELGRADE	
Milica Simovic, Petar Mitkovic	57
POCKET PARKS AS A TYPE OF URBAN GREEN SPACE – BENEFITS AND POSSIBILITIES OF IMPLEMENTATION	
Magdalena Vasilevska	65
RESIDENTIAL SPACE AS CHANGEABLE AND RESILIENT POLYGON FOR FUTURE LIVING	
Borjan Brankov, Marina Nenковиć-Riznić, Mila Pucar	73
SHARING IS CARING: CO-HOUSING AS A MODEL OF STUDENT HOUSING IN SERBIA	
Hristina Krstic, Miomir Vasov, Vladana Petrovic, Mirko Stanimirovic	81
COMMUNICATING BUILT HERITAGE - SEMIOTICS OF INDUSTRIAL HERITAGE IN THE CONTEXT OF URBAN TRANSFORMATION	
Ljiljana Jevremovic, Branko AJ Turnsek Aleksandar Milojkovic, Ana Stanojevic, Marina Jordanovic	91
REGAINING THE CITY - IDEAS AND INTERVENTIONS IN URBAN PUBLIC SPACES	
Constanta Carmina Gheorghita	99
THE WORSHIP SPACE AS AN IN-BETWEEN PLACE	
Constanta Carmina Gheorghita	105
THE POTENTIALS OF WINE REGIONS FOR THE FORMATION OF CULTURAL LANDSCAPES: EUROPEAN EXPERIENCES	
Ana Stanojevic, Branko AJ Turnsek, Ljiljana Jevremovic, Marina Jordanovic, Isidora Djordjevic	113
WHEN DISASTERS AND ERRONEOUS GOVERNMENTAL DECISIONS MEET IN HISTORICAL CENTRE: THE CASE OF THE OLD MARKETS OF THE LEBANESE TRIPOLI	
Antoine Dib, Hristina Krstic	121
CONSEQUENCES OF IMPROPER PLANNING - ARCHITECTURE IN PIROT	
Mirko Stanimirovic, Slavisa Kondic, Tanja Obradovic, Vojislav Nikolic, Hristina Krstic	131
ENVIRONMENTAL BENEFITS OF GREEN ROOFS	
Dušan Ranđelović, Miomir Vasov, Dragana Dimitrijević Jovanović, Jelena Stevanović, Aleksandra Ćurčić	139
KINETIC FACADES AS ELEMENTS OF CONTEMPORARY AND SUSTAINABLE ARCHITECTURE	
Aleksandra Ćurčić, Gordana Topličić Ćurčić, Nataša Matić, Dušan Ranđelović	145
REVEALING NATURE THROUGH PLAY IN URBAN DESIGN EDUCATION	
Jelena Živković, Marija Cvetković, Rajko Korica	153
PROPERTIES AND QUALITIES OF DISPERSED URBAN FABRIC: UNDERSTANDING THE BANJA LUKA URBAN FORM	
Nevena Novaković, Anita Milaković, Dijana Simonović	163

GREEN LIVING ROOFS AS A PART OF GREEN INFRASTRUCTURE Dragana Dimitrijević Jovanović, Danka Kostadinović, Predrag Živković, Dušan Randelović	171
SOLAR PARKING CANOPY AS A PART OF ENERGY EFFICIENT URBAN PLANNING Aleksandar Pantić, Dragana Dimitrijević Jovanović, Petar Mitković, Mirjana Laković – Paunović, Mihailo Mitković	179
SUSTAINABLE MANAGEMENT OF OPEN PUBLIC SPACE IN A LARGE HOUSING ESTATE IN SOFIA: INTEGRATING PHYSICAL CHARACTERISTICS AND SOCIAL DIMENSIONS Milena Tasheva - Petrova	187
COMMON OPEN AREAS AS INTERACTIONAL SPACE IN SOCIAL HOUSING - DESIGN PRINCIPLES AND SPATIAL CHARACTERISTICS Nataša Petković, Branislava Stoilković, Vladana Stanković	197
BUILDING RESILIENCE THROUGH CREATIVE STRATEGIES IN SMALL POST-SOCIALIST SHRINKING TOWNS Milica Ljubenović, Ivana Bogdanović-Protić, Petar Mitković, Milica Igić, Jelena Đekić	205
PREFABRICATED HOUSING FOR INCREASING RESILIENCE TO FORCED MIGRATIONS Vuk Milošević, Michał Chodorowski	213
SMART GREEN PORT ASSESMENT ON PLANNING SOLUTION OF DOCKYARD IN BELGRADE Tatjana Mrdjenovic, Miodrag Ralevic	221
FUNCTIONAL AND AMBIENT QUALITIES OF SCHOOL GROUNDS: A CASE STUDY IN NIS Milan Tanic, Danica Stankovic, Vojislav Nikolic	229
PLANNING, SCALE OF OWNERSHIP AND THE OPTIMAL NUMBER OF CO-OWNERS Aleksandar D. Slaev	237

Disclaimer

The contents of the papers presented in this publication are subject to review, but the authors are responsible for the originality and quality of their papers.



CONSEQUENCES OF IMPROPER PLANNING - ARCHITECTURE IN PIROT

Mirko Stanimirovic

University of Nis, Faculty of Civil Engineering and Architecture, Serbia
PhD., Assistant Professor, wireframe22@gmail.com

Slavisa Kondic

University of Nis, Faculty of Civil Engineering and Architecture, Serbia
Teaching Assistant, skondic555@gmail.com

Tanja Obradovic

Ministry of Construction, Transport and Infrastructure of the Republic of Serbia, Serbia
obradovic.tanja@gmail.com

Vojislav Nikolic

University of Nis, Faculty of Civil Engineering and Architecture, Serbia
Teaching Assistant, vojislavn@gmail.com

Hristina Krstic

University of Nis, Faculty of Civil Engineering and Architecture, Serbia
PhD., Teaching Assistant, hristinaa@hotmail.com

ABSTRACT

This paper analyses the urban plans of the city of Pirot and their influence on modern architecture. We are witnessing growing problems within pollution, energy problems, insufficient parking space, and lack of public areas. Also, to evaluate contemporary architecture according to modern theory and practice, the authors propose the development of the city by considering crucial problems. We hypothesize that planning has greatly diminished the value of contemporary architecture. Case studies are done for terraced houses in the settlement of the Tiger factory newer houses on the left bank of the river Nisava and Western quay settlement. Their design is evaluated according to the criteria of the five design principles.

Keywords: urban planning; Pirot; architecture

1. INTRODUCTION

Pirot is a city in southeastern Serbia. The urban area of the city has a population of almost 40000. The city has a rich geographical feature: mountains Stara Planina, Vlaska Planina, and Belava; rivers Nisava, Jerma, Temstica, and Visocica; one bigger lake: Zavojsko. The city of Pirot has a rich culture with notable churches and protected architecture of XVIII and XIX century. Churches and inherited architecture are presented in science. Illustration of the urban development of Pirot in the XX century is of great importance for this topic (Ćirić, 1969). In a contrast to this, works about ancient churches stand the contemporary architecture of Pirot, which is not presented at all. The contemporary urban design of the square is the only topic about which it was written (Stanimirovic, 2016). As the amount of living space in this city is constantly increasing, we believe that it is necessary to present an analysis of newer architecture and urban design. In this regard, in this paper, we will evaluate the concepts of urban design in Pirot and its present architecture. We believe that average architecture gets more value through good urban design. Also, good architecture in a not so good urban design gets a lower value. We hypothesize that planning has greatly diminished the value of contemporary

architecture. We will try to evaluate design according to the criteria of the five design principles (Jovanovic et al, 2018).

2. THE FOUNDATION OF URBAN DESIGN IN PIROT

The regulation plan of the town of Pirot from 1888. is the first official document of the Kingdom of Serbia after the liberation from Turkish rule. (Ćirić, 1973). Like other liberated places, Pirot got its urban plan, which consisted of two leaves (Tijabara and Pazar) that covered the territory on the left and right side of the river Nisava. The existing situation was drawn and a new situation was proposed. The plan accepted the Turkish scheme of the settlement (especially in the part of Tijabara), which arose spontaneously. According to European standards, straight streets to the railway station are planned, while other, busy streets will remain winding due to the position of already built houses. However, the plan shows the intention to relocate houses that violate the straight line of future regulation. The development of Pazar was conditioned by the installation of protective trenches through which excess water flowed. The development was also influenced by the position of the Constantinople Road. Thus, the rectilinear regulation was given to Kralja Aleksandra Street (later Marshall Tita), as opposed to other oriental and rural compositions of the space. Along the side of the direction Nis-Sofia (northwest-southeast), there is a higher density of mostly residential houses, while the interior of the blocks consists of green spaces intended for agriculture and the then way of life. Following this plan, the river Nisava will become regulated from the main bridge which connects Tijabara and Pazar. Instead of a winding river, the Nisava will flow in a straight line. What can be concluded is that the conditions of the topographic environment were not misused in this urban settlement (Ćirić, 1969). The degree of urban deformation of the city (the ratio of the real and urbanly justified situation) after the Second World War was 15-25%, while before the war it was 10-15%. For the sake of comparison, Leskovac and Nis have 70% at a similar time, Aleksinac and Vranje about 10%.

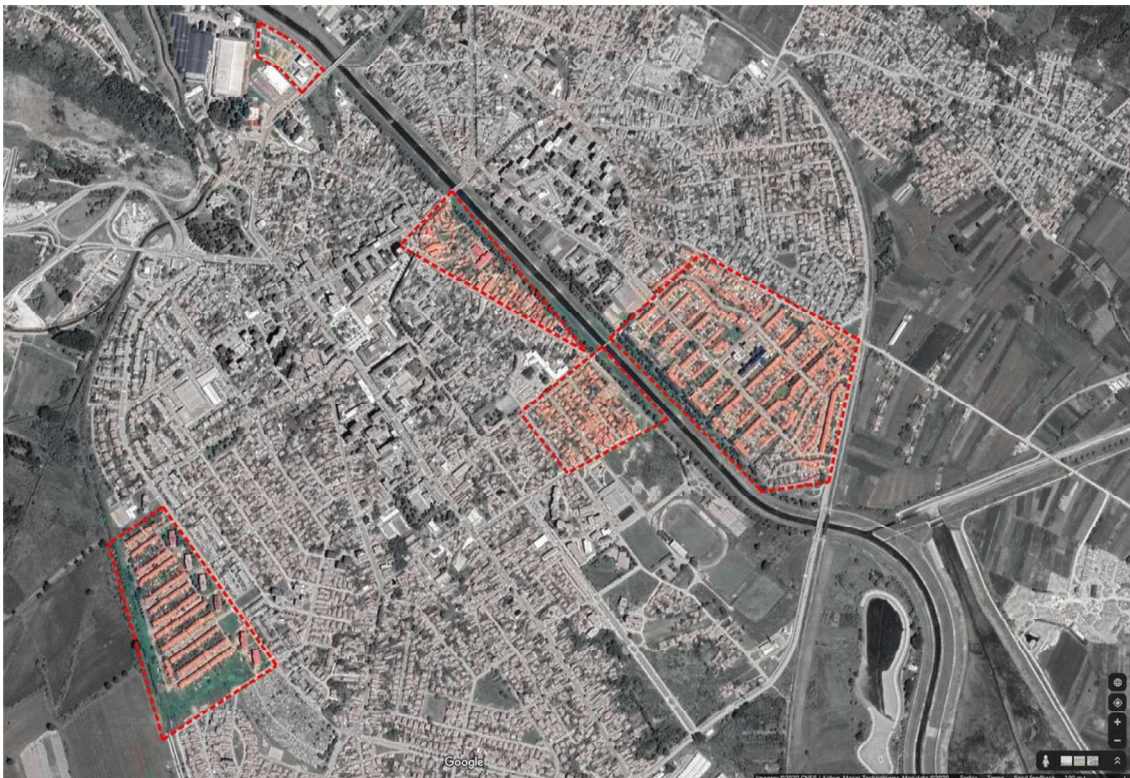


Figure 1: Pirot, (Source: <https://www.google.com/maps>, Accessed: September 20, 2020)

We think that Ćirić quite rightly pointed out the importance of the proper organization of the urban character of Pirot. From the conclusion that no major mistakes were made in the development of this place in the past, Ćirić proposed a plan that took into account the intertwined contents of natural and cultural origin. According to him, the main orientation of the relief is northwest-southeast, due to the flow of the river Nisava, which passes through Pirot and the tectonics of the valley. A calmer and less frequent direction is the transverse, northeast-southwest. Furthermore, the composition of the city is influenced by Sarlah Hill as a landscape

treasure, hydrographic contents in a functional aesthetic sense, landscape vegetation contents, views, street and traffic network, monumental and ambient values.

In relation to the time when Jovan Ciric wrote about the urban organism of Pirot, the current situation is worse. First, the opposite current in decision-making advocated the view that Pirot should be developed in the direction dictated by the bridge over the river. Ciric's idea of the road to Nis which passes by the ambient and monumental stronghold, Gradac, next to the hill Sarlah, was abandoned. A boulevard was started parallel to the direction of the main street, which was supposed to reduce the load on the main axis of the city. However, its completion was completely destroyed by the construction of a residential building in that direction. Thus, the transverse direction gained in importance.

Pirot has ambient and monumental urban strongholds that are given both in the natural environment and in the historical heritage of the city. Ciric's idea is completely correct: Since Gradac has both, it should be emphasized and refined, not to allow any movement of construction. However, although the law defines the protected ambient units from Gradac to Gimanzija, the permanent construction on this stretch is completely opposite to this idea. In fact, if we look at last year's renovation of Gradac, modern housing construction, and the current plan, the only environment that has not been destroyed in the area of the quay on Nisava.

3. TERRACED HOUSES IN THE SETTLEMENT OF THE TIGER FACTORY



Figure 2: Pirot, Tigar's terraced houses (Photo: Mirko Stanimirovic)

In the sixties of the XX century, the tire factory Tigar formed a housing cooperative with the aim of more favorable construction of apartments for its employees. The factory hired the famous Yugoslav architect Mihajlo Mitrovic to participate in the endeavor to build a combination of an apartment and a classic house based on the workers' settlements in Wembley (UK) 880 apartments for workers were built in 1964, on the right bank of the Nisava. At that time, one of the designers, the architect Dragoljub Aleksic, rightly criticized the construction of apartments in large blocks from 1958. Earlier individual buildings in Pirot underwent an evolution in the period 1945-1965 under the influence of administrative measures and retained advantages over apartments in large blocks. We support Aleksic's position that for Pirot, the most rational housing construction is in rows and that it provides residents with very decent comfort. Opposite to the economical

multi-story buildings, Tigar's apartment has its yard, parking, and two entrances, but also its roof. Block housing construction actually requires much more green space, large parking lots, playgrounds, etc. It makes this type of construction seemingly better (Aleksić, 1971), because not enough of the mentioned contents were realized in any block. If we compare the situation during socialism and current capitalism, such a space within multi-story housing is incomparably better in the case of the former. In Pirot, and probably beyond, it did not happen that today an investor tidies up the yard instead of building squares of his product.



Figure 3: Houses plan- a) Wembley, College Road HA9; b) Pirot, Tigar factory housing (Drawings: Mirko Stanimirovic)

Later, the expansion of this settlement was realized. The settlement on the right side of the Nisava was given the epithet old. The new one was built on the left side of the river, but far from Nisava. The apartments had 3 or 4 rooms, in 2 levels. The apartments on 3 levels had a narrower front. This concept of settlement quickly became a model for workers' apartments throughout the country. Indeed, in contrast to the scattered houses from previous periods, the rows of houses in a row were placed in a precisely defined order similar to the English model from the 1930s. Everything was defined, from the height of the hedge to the type of flowers, trees, and fence. The courtyards were actually extended by the greenery of the quay and the tree-lined avenues that separated the rows.

Modest houses with gabled roofs adapted to the terrain, which suited both the ambiance and the concept of workers' apartments. The houses at the ends of the rows also had a significant part of the yard on the side, which made them more exceptional, with an additional load of energy for heating. However, while the urban design was flourishing, the organization of apartments had several design problems. Coupled with poverty, this problem escalated to the addition of brand new backyard houses in the late 20th century. Of course, the law protected the design, but its implementation failed. The need to live in one apartment for three generations required the expansion of apartments, disrupting the shape and character of the settlement. It is interesting that the ideal picture of the old settlement was so strong that none of the researchers addressed this phenomenon. The newly expanded apartments actually intensified the problems realized from the beginning. Rooms were often built without windows, and the organization has become so degraded that it is clear that the struggle for squares has won over comfort and architecture. Certainly, we can conclude that the problems (which we will analyse later) were invisible due to good urban design. This would confirm our assumption from the beginning - in good urban design, average architecture gets more value. In this case, the value of the apartments is equal to the value of the settlement, which later influenced the new arrangement of public areas in Pirot. Namely, the area next to the river is naturally seen as very attractive, and in addition to the defense against the river overflowing, it becomes a city promenade. After a couple of decades in the dark, the city puts street lighting in the tree lines and thus builds a new landmark of the city. But this intervention, in addition to

the new look of the old ambiance, also contributed to the perception of the initial problems, which will later continue to the settlement on the left.

From the plan of the settlement on the right side of the river, two directions of the apartment line can be clearly seen. The first, the most attractive, is parallel to the SE-NW river. Directly to it is the direction of most of the rows, SW-NE. The block was disturbed by the construction of three multi-story buildings (which respect the set direction), around which the contents of the trading nature naturally appeared. Other rows of houses are clumsily placed according to the current and planned street network. Anyway, if we look only at the first two directions, which are the result of the urban design of the time, we notice the following problems. First, the organization of apartments is the same, regardless of orientation. One concept was copied towards both the river and the tree lines, without taking different sides of the approach from the residential streets. Second, the position of the living room in all apartments is turned to public communication, instead of being turned to an intimate courtyard. At the time when the quay was unlit, the apartments by the river were in a certain intimate situation. Their comfort was enjoyed only by mosquitoes and the periodic gathering of young people. In the current situation, the quay is a very frequent communication (not only pedestrian, unfortunately) and the ambiance of the living rooms is significantly endangered. Third, in some rows, the living room has an inadequate orientation - located in the north or NW. Fourth, the glazed terrace in front of the living room significantly reduces the amount of light - the living rooms are dark. These problems are also found in the apartments in the new Tiger settlement. The new settlement has rows in the direction that is directed to the big road, which follows the course of the river.

4. LEFT BANK OF NISAVA



Figure 4: Krstić's house (Photo and drawing: Mirko Stanimirovic)

Without going into the overall urban design of Pirot, we analysed the urban matrix on the other side of the river. To be respected is a block of semi-detached houses near the sports centre. If we look at the profile straight to Nisava, after the tree line on the rampart there is a street that follows the course of the river. Next to it is an (unarranged) green area and at the end are blocks of houses, which we did not enter into because there are a lot of different concepts. What we want to emphasize is the correct position of the houses concerning the river and communication. The living rooms are far enough away, with a view of the Stara Planina and the tree-lined avenue near Nisava. However, even that planner's idea was not fully implemented. The street towards the city centre does not follow the river, but changes its direction, leaving an unarranged block of houses towards the river. Probably due to the attractiveness of the quay itself, the houses that were built next to the tree line not only endanger the ambiance of the quay but also have a continuation of the

problems of the old settlement of the Tigar factory. Their construction line is much closer to the tree line than in the case of the best settlement in Pirot. The courtyards to the north-east are completely open to public communication. Similar to the initial problem of the old settlement, the intimacy of the living room is completely disturbed. For example, we will take the family detached house built in the past couple of years, the Krstić's house. The authors of this house are architects Andreja Mancic and Aleksandra Ristic. The design and concept of this house deserve a different situation. The value of the modern look of the house is diminished by inadequate urban design. First, the living room is open to communication and the northeast. Probably the authors, aware of the lack of a plot, reduced the openings of the living room. It is to be expected that the house in a green ambiance will be completely open to nature, with large glass surfaces. Second, the position of the yard is questionable for the same reason. It is impossible to achieve its intimate function. It follows the proof of the second part of the initial assumption - good architecture is not so the good urban design gets a lower value. In our opinion, the structure of the lower settlement should have been continued, leaving the distance between the construction line and the quay. In the block created in this way, some citizens are forced to use the quay as a road communication, because their only entrance to the plot is from the quay. This is an additional threat to the environment by the river. It can be concluded that the planner's intention to fix the character of the city does not exist. On the other hand, we could conclude that no apparatus implements the ideas of the profession. Not far from this house is a two-story detached residential building, which was recently designed by architect Nenad Zivkovic. This facility has similar problems.

5. WESTERN QUAY SETTLEMENT



Figure 5: West Quay (Photo: Mirko Stanimirovic)

The residential and business space West Quay is located on the left bank of the Nisava. One building has 34 apartments on 6 above-ground levels. There are mostly business premises on the ground floor, except for the building that is closest to the river, where there are apartments on the ground floor. The entrance to the complex is located next to the shopping centre, while the pedestrian access from the quay is partially paved with the position of the bridge. 4-5 facilities are planned, 2 have been built. The existence of business space is important, which expands the free activities of tenants. For example, people can meet each other in a cafe, not in the living room, which increases the intimacy of the apartment. However, the proximity of communication and the courtyard of the apartments on the ground floor is not a product of decent design. The concept of buildings and settlements is common in the 20th century in Serbia, and we will list some of the problems here. The apartments facing the quay have a good position in terms of views, which cannot be said for apartments whose views are towards the bridge, the factory, or towards the neighboring residential and business buildings. On the other hand, the position of the living room in such apartments is facing northeast, which we cannot assess as a good solution. The concept of the buildings does not correspond to the situation, because the connection with nature should have been achieved for all apartments in a position other than those towards

the river. The position of the complex on the other side of the river would probably be a better solution in terms of sunshine. However, this cannot be the case, as there are no vacant plots. The organization of apartments is like most apartments in Serbia nowadays: living rooms of insufficient width, their wrong orientation, most kitchens are without natural lighting and ventilation, the concept of the apartment is a product of the usual creation of squares and not the comfort of the XXI century. We expect that in the future the price of a square meter of the apartment will be affected by the location and equipment and the quality of the space outside and inside. However, the organized complex is something that we do not meet so often in practice, so within a decent design, this project gained in value with all the flaws that we mentioned. Also, the size of Pirot and the habits of the citizens correspond to this position of the complex.

6. DESIGN PRINCIPLES EVALUATION

The principles created as a set of recommendations look at architectural design as a comprehensive thought, ethical, creative process (Marušić, 1999). The five design principles are: unity of space, ambientization, contextuality, evolution of ideas and professional ethics (Jovanović, 2015). Regarding this topic, it is important to analyze the principles of ambientalization and contextuality. We will conduct a tabular scoring of the described examples. Within the first principle (A), we observe whether the spaces of the apartment and the environment permeate to improve the quality of life. The principle of ambientization (B) in this case refers to the realized public or private purpose of the space of the street, apartment and yard. Within contextualization (C) we observe the interaction of architecture with place. Contextuality in architectural design refers to: cyclical ideas, use of previous experiences, creative interpretation of heritage, application of archetypal forms, enrichment of architectural thought and modernization of experiences (Jovanovic et al, 2018). Within the evolution of ideas (D), we observe the creative processing of an inherited model. Finally, under the fifth principle (E), we condemn the literal taking of ideas from practice. We scored according to the following principle. Within each principle, we rated each of the cases slightly with 0 or 1, depending on whether at least a little was in line with the recommendation.

The principles created as a set of recommendations look at architectural design as a comprehensive thought, ethical, creative process (Marušić, 1999). The five design principles are unity of space, ambientization, contextuality, the evolution of ideas, and professional ethics (Jovanović, 2015). Regarding this topic, it is important to analyze the principles of ambientalization and contextuality. We will conduct a tabular scoring of the described examples. Within the first principle (A), we observe whether the spaces of the apartment and the environment permeate to improve the quality of life. The principle of ambientization (B) in this case refers to the realized public or private purpose of the space of the street, apartment, and yard. Within contextualization (C) we observe the interaction of architecture with the place. Contextuality in architectural design refers to cyclical ideas, the use of previous experiences, creative interpretation of heritage, application of archetypal forms, enrichment of architectural thought, and modernization of experiences (Jovanovic et al, 2018). Within the evolution of ideas (D), we observe the creative processing of an inherited model. Finally, under the fifth principle (E), we condemn the literal taking of ideas from practice. We scored according to the following principle. Within each principle, we rated each of the cases slightly with 0 or 1, depending on whether at least a little was in line with the recommendation.

Table 1: Design principles

<i>Case</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>SUM</i>
<i>The old settlement of Tigar</i>	1	1	1	0	1	4
<i>House in the settlement on the left side of Nisava</i>	0	0	0	1	1	2
<i>West Quay Complex</i>	0	1	0	0	1	2

7. CONCLUSION

Our assumption from the beginning of the research has been proven to be correct. Indeed, the character and shape of the city should be created by experts. Congratulations to the civil engineers, they are necessary factors of every project and construction. But the image of the city should be dealt with by architects and visual artists because their education is subordinated to aesthetics and the development of a sense of creating a composition. It is a completely different matter to implement and plan the City's strategy, which should be done by a team of managers in cooperation with architects. We also advocate the view that any construction in

a public space should be the subject of a public architectural competition. In case someone wants to build a private house on the outskirts of the city, which does not participate in the image of the city from which culture and tourism have some benefits, such a project can be done outside the professional public and according to the rules of the profession. On this occasion, the urban design would be very useful, as the results of our research show - in good urbanism, house architecture gets the value of the whole, because Architecture and urbanism are without boundaries, without division in the design process and division in practice. In other words, the consequences of inappropriate urban design for people's lives are great.

REFERENCES

1. Aleksić, D., 1971. Izgradnja malih stambenih kuća u nizu. *Pirotski zbornik*, 3. pp 171-181.
2. Ćirić, J., 1969. Urbanizacija Pirota. *Pirotski zbornik*, 2. pp 2-20.
3. Ćirić, J., 1973. Regulacioni plan varoši Pirota. *Pirotski zbornik*, 5. pp 157-168.
4. Marušić, D., 1999. Projektovanje 2, sveske od br. 1, do br. 8, Unpublished results, Arhitektonski fakultet, Beograd.
5. Jovanović, G., 2015. Uvod u arhitektonsko projektovanje, AGM knjiga, Beograd. ^[1]_{SEP}
6. Jovanović, G. and Stanimirović, M., 2018. Pet projekatstkih načela, *Nauka + Praksa*, 21. pp 71-76.
7. Stanimirovic, M, Jovanovic, G., Kondic, S., Nikolic, V., and Stankovic, V., 2016. Corellation Between Urban Design and Context: Square in Pirot, *1st International Conference on Urban Planning - ICUP2016*, pp 193-200.