



Places and Technologies 2015

# KEEPING UP WITH TECHNOLOGIES TO MAKE HEALTHY PLACES

Nova Gorica, Slovenia, 18.–19.6.2015

# PT2015

## BOOK OF CONFERENCE PROCEEDINGS

*A healthy city is one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and developing to their maximum potential.*  
*Health Promotion Glossary (1998)*

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**Places and Technologies 2015**

**KEEPING UP WITH  
TECHNOLOGIES TO MAKE HEALTHY PLACES**

BOOK OF CONFERENCE PROCEEDINGS

**Editors:**

Alenka Fikfak, Eva Vaništa Lazarevič,  
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Nova Gorica, Slovenia

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## **UNFOLDING THE URBAN FRAGMENTS: WALKING/RUNNING THE CITY**

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### **ABSTRACT**

*The city is a living process and a physical artefact. However, contemporary cities are increasingly conceived and imagined as variable programmatic compositions and decreasingly as material artefacts. The physical structure of the city is undergoing a crisis. But, it is exactly the physical texture of the city that contains records of different uses and represents not only a historic-cultural artefact, but also a tool that has the potential to make the city a healthy supportive environment. So, former parts of the city which are presently its marginal zones are not only worthless/obsolete museum pieces, but also potential traces for a new way of conceiving the city and acting in the city. The modern narration starts from the city as a contradiction to nature. This concept still holds today. We are living in the city texture, but we are relaxing ourselves (walking, running) along the periphery or in empty and “green zones” of the city. Cities have become unsustainable hybrid polarized places: on one hand, we are increasing the development density; while on the other hand, we are widening the free zones. This paper will deal with the inner capacities of the city, its physical traces, and remaining fragments from the aspect of contemporary use in maintenance of the psychophysical condition of the contemporary citizens. The physical structure of the urban fragments is seen as a tool, entity, product of complex social and physical processes that brings numerous values particularly in respect to the most important strategic issues – public health. In the case of the urban fragments of the Skopje city, through morphological decomposition, we will explore the potentials of the different spatial systems of the city as healthy places*

*Keywords: Urban fragment, physical structure, spatial practice, running, walking*

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<sup>1</sup> Corresponding author



## **INTRODUCTION**

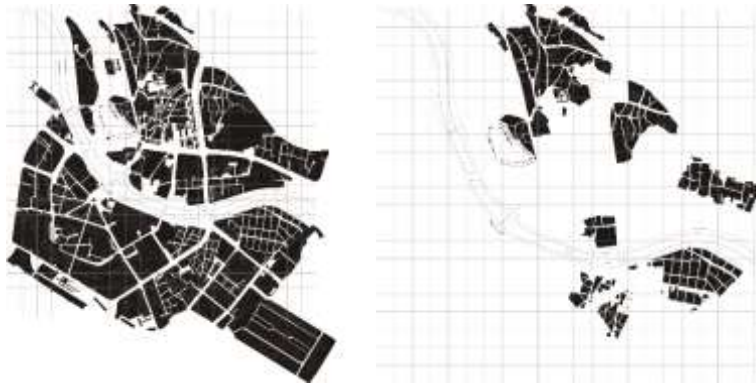
A place is always a process of living and a physical artefact. An event and a physical expression (Oliver, 1987, p.7). However, contemporary metastable social situation is increasingly relativizing the real physical context. The physical structure increasingly becomes expression of the flexible spatial accumulation and permanent change of spatial order (Harvey, 1990). To that effect, a continuous physical structure of a city is subject to fragmentation and transformation. But, if on one hand, the fragmentary nature of the contemporary city has problematized the superimposed spatial models, on the other hand, it opened the potential for diverse and heterarchical physical situations in the city.

In this text, the physical structure of the city shall be the subject of research in respect to the defined spatial practices, physical activities of man. Usually, recreation and different forms of free activities are exposed to the functional segregation of our cities. In that sense, the modern paradigm in respect to the activities is still viable. People live in the city but exercise in nature. In the everyday practice, we can still recognize the model of differentiation, living, working, recreation. But, if the boundaries in the overlapping of certain forms of working/living are presently blurred in the relationship between working and living according to the technological basis that enables working and living, the recreation in the open space is recognized as something contrary to the everyday ambients of the city and as something that is separate in spatial and territorial sense. In the contemporary urban practice, we can certainly distinguish certain modes of overlapping and use of urban ambients as the basis of physical/artistic activity in the case of parcourse (Brooks Kuraoko, n.d.), parkour (Atkinson, 2009; de Freitas, 2009), freerunning (El-hage, Tina, 2011; Masters and Yaskawa, 2014), de'rive (Debord, 1958), but these are most frequently derived from military techniques or a critical artistic practice where the physical structure is a challenge to be surmounted and recorded. But, can the everyday ambients be the basis for development of certain forms of recreation? How and to what extent the specific situations from our cities can become places for the new activities of their inhabitants?

Taking Skopje city as an example, we shall try to reconstruct the process of everyday places and potential recreational activities. It is exactly the contemporary fragmentary state of Skopje, non-established in respect to an urban paradigm, that can become the basis for different readings and interpretations.

## **THE FORGOTTEN FRAGMENTS OF THE CITY**

The present city is all but a unified physical fact, representing simultaneous presence of different realities. The view of Skopje and its central city area (2 km x 2 km) shows the diversity and the divergency of its texture.



**Figure 1: Skopje, fragments of the traditional basis of the city**

However, behind the modern fragmentary city is the spatial scheme of the traditional city as a general basis for a series of transformations in the process of modernization of the city. The traditional city is not disappearing, but is continuing to exist in a number of pieces and pockets of the new city area. It is exactly this suppressed and forgotten layer, the subject of a number of external transformations in the process of modernization as well as inner successive devastation in the post-modern period that is the subject of research of the potential of the existing texture of the city. Contrary to the usual perception of the traditional city as a unique phenomenon, we can distinguish in it a number of different morphological object sources that will be the subject of further analysis.

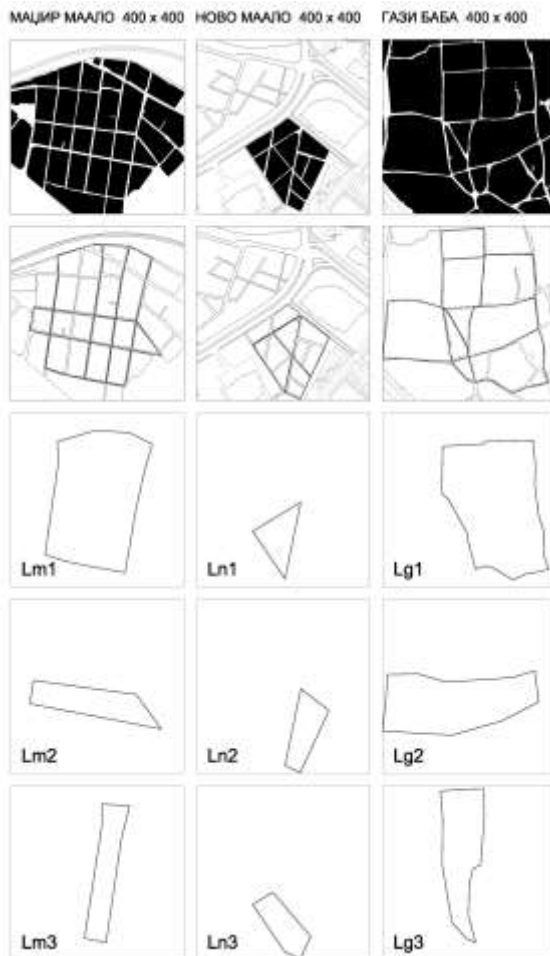
### **URBAN SAMPLES: IMPRINTS/ACTIVITIES**

The analytical procedure for the physical structure of the city was conducted on referent samples that involved the marginal state of the residential texture in the sense of “forgotten places” in the process of modernization.

The size of the samples derived from a 5 minute walking distance of 400 m (1/4 mile) traditionally became part of the history of planning of the territory of the neighborhood. The diagram created by Clarens Perry (“Neighborhood Unit of the 1920 New York Regional Plan”) defined the neighbourhood inside, in a five minute walking radius (Sustainable Neighbourhood Planning for the Region, Neighbourhood Scale, 2004). The radius was measured from the centre in which contents related to culture and education were situated. In the case of the morphological analysis that we propose, the morphological samples are based on a spatial fragment of 400 x 400 m that contains the distance of 5 minute walking as an arbitrary module and also man tailored spatial interval within whose frames continuous spatial aggregations are possible.



The samples include fragments of the residential texture (400 m x 400 m) of Madzir Maalo neighbourhood, Novo Maalo neighbourhood and Gazi Baba (Fig. 3). Gazi Baba is part of the residential texture of the traditional city on the left bank of the Vardar river. Madzir Maalo neighbourhood is the first planned extension of the right bank dating back to the second half of the XIX century. Novo Maalo neighbourhood is one of the last extensions of the traditional city on the right bank which was entered for the first time in the Skopje city plans in the beginning of the XX century.

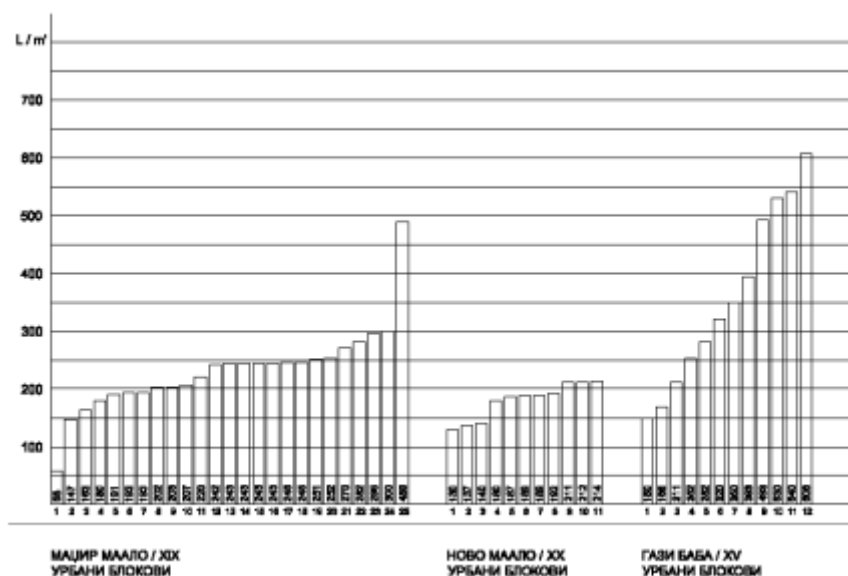


**Figure 2: Samples (400 m x 400 m) from Madzir Maalo, Novo Maalo, Gazi Baba and the selected tracks for running/walking.**

From the inside selected samples of 400 m x 400 m, we shall derive the lengths of the street plans and the scope of the urban blocks (Fig. 4). In that way, inside the defined fragment, we shall obtain the total length, the total scope which we will be able to explore further in respect to the given distances and the time necessary to surmount them. The running lengths are differentiated according to the intervals of



short distances (60 m, 100 m, 200 m, 400 m), moderate distances (800 m, 1500 m, 3000 m), and long distances (5000 m, 10000m). The main module by which the running distances are derived is the length of the racetrack of a football stadium(400 m). So the racetrack of 400 m, the length of the racetrack around the football terrain (100 m x 70 m), will be the main module also for measuring and comparing the distances derived from the selected samples.



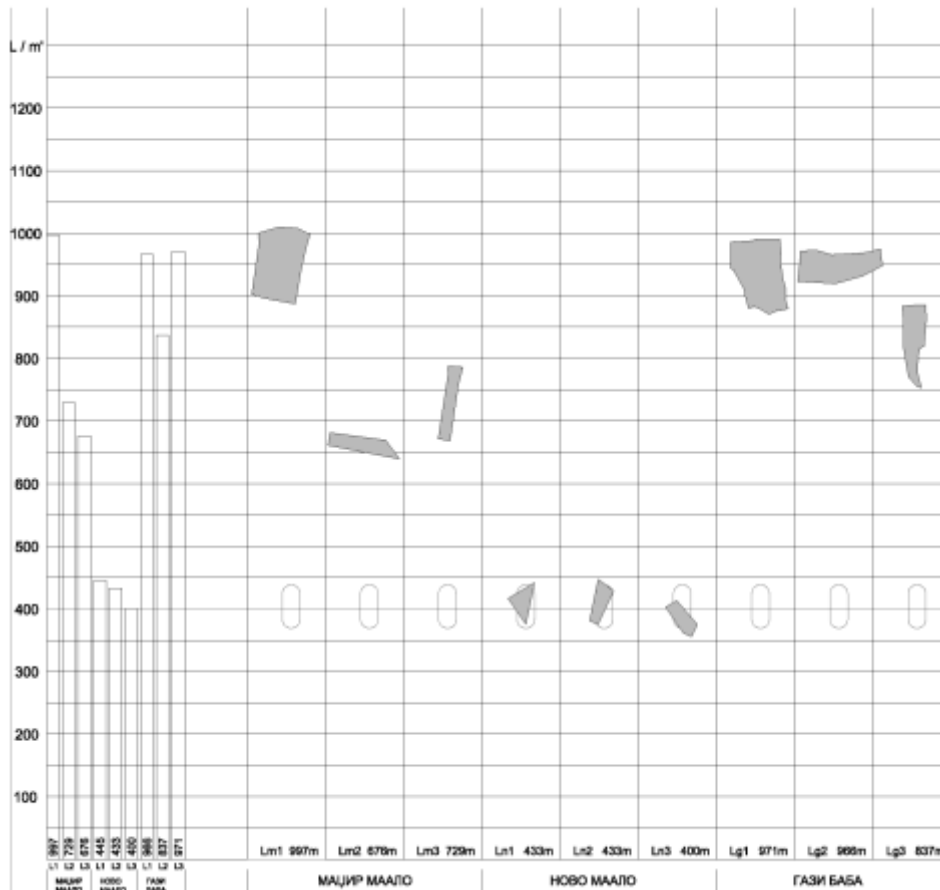
**Figure 3: Number and scope of urban blocks derived from the samples (400 m x 400 m) of Madzir Maalo, Novo Maalo, Gazi Baba.**

In the case of Madzir Maalo neighbourhood, within the given frame, there are inscribed 25 urban blocks with a scope in the interval of 58 m to 489 m. We obtain the mean value of the blocks of 231 m from the total scope of the urban blocks inscribed in the frame of 400 m x 400 m divided by their number. In the case of Novo Maalo neighbourhood, we separate from the residential fragment 11 urban blocks with a scope in the interval of 130 m to 214 m. The mean value of the scope of the blocks amounts to 178 m. In the case of the fragment from the residential texture of Gazi Baba, in the given frame of 400 m x 400 m, inscribed are 12 urban blocks in the interval of 150 m to 606 m. The mean value of the blocks is 358 m (Fig. 4).

The total length of the street plans for Madzir Maalo neighbourhood is 3651 m. For Novo Maalo neighbourhood, it amounts to 1095 m, while for Gazi Baba, it is 3003 m (Fig. 4). If these lengths are divided by the interval of 400 m referring to the length of the racetrack around the football stadium, we obtain values of 9,13 times for Madzir Maalo, 2,73 times for Novo Maalo, 7,5 times for Gazi Baba to be contained in the total developed length of the street plans. As to the time interval for walking along these lengths according to the 5 minute walking to a distance of



400 m, the obtained time for Madzir Maalo is 46 minutes, 13,7 minutes is obtained for Novo Maalo and 37.5 minute walking is obtained for Gazi Baba. Hence, within the frames of a sample of 400 m x 400 m referring to a 5 minute walking in the three different samples, we can develop length referring to 46 minute, 13.7 minute and 37.5 minute walking.



**Figure 4: Developed length of the distinguished tracks and their figure compared with the main module of a racetrack around the football terrain (400 m)**

In the samples of 400 m x 400 m, we select three possible running/walking tracks. The three tracks are derived first of all according to their continuity and for always closing the selected figure, second, according to the simplicity of the figure and third, according to the specificity of the morphological structure of the selected sample (Fig. 3 and Fig. 5). So, we distinguished the following tracks with the following lengths: for Madzir Maalo, Lm1= 997 m, Lm2=729 m, Lm3=676 m; for Novo Maalo, Ln1= 445 m, Ln2=433 m, Ln3=400 m.; for Gazi Baba, Lg1= 837 m, Lg2=966 m, Lg3=971 m. We can put the three tracks in the zone of short and moderate running distances, or if we turn them into lengths of the racetrack around



the football stadium, the following values will be obtained: for Madzir Maalo, Lm1, 2,49, for Lm2, 1,82 times and for Lm3, 1,69 times the track with length of 400 m; for Novo Maalo Ln1, 1,1 times, for Ln2, 1,08 times and for Ln3, 1 times the track with length of 400 m; for Gazi Baba, Lg1, 2.09 times, for Lg2, 2.4 times and for Lg3, 2.42 times the track with length of 400 m. As to the walking time according to the 5 minute walking to a distance of 400 m, the following average times are obtained: for Madzir Maalo, Lm1= 12,45 minutes, Lm2=9.1 minutes, Lm3= 8.49 minutes; for Novo Maalo, the average time for Ln1, Ln2, Ln3 of 5 minutes; for Gazi Baba, for Lg1=10.45 minutes, Lg2= 12.1 minutes, Lg3 =12.14 minutes. However, if we integrate the three separate tracks into a continuous configuration for running/walking, we will obtain in that way the following values: min Lm= 2402 m or 6 times the length of the racetrack around the football terrain and time of 30 minutes walking for Madzir Maalo; min Ln= 1278 m or 3 times the length of the racetrack around the football terrain and time of 16 minute walking for Novo Maalo; min Lg= 2774 m or 6.93 times the length of the racetrack around the football stadium and time of 34.65 minute walking for Gazi Baba

From the individual reviews of the different spatial forms of the traditional residential texture, we can derive certain conclusions. The number of urban blocks is inversely proportional to the interval of their size. In the case of Madzir Maalo neighbourhood and Novo Maalo neighbourhood, the difference in respect to the interval of size referring to Gazi Baba is clearly observable. It becomes evident that the process of modernization at the level of the traditional object sources reduces the initial elasticity of the residential texture. The number of blocks is increasing, but the difference in size is decreasing. Still, in all three cases, there is an agreement of the mean value of the scope of the blocks which is relevant for the potential physical activity: 231 m, 178 m, 358 m.

From the investigated cases of Madzir Maalo, Novo Maalo, Gazi Baba, we may draw a conclusion on the potential of the developed lengths of the street plans in the different spatial forms. So, we have lengths of 3651 m, 1095 m, 3003 m or 9,13 times, 2,73 times, 7,5 times the racetrack around the football stadium and walking time of 46 minutes, 16 minutes, 37 minutes. Within the frames of a sample of 400 m x 400 m referring to a 5 minute walking, we can develop a length referring to 46 minutes, 16 minutes, 37.5 minutes.

The three tracks derived from the three samples point to both differences and similarities expressed respectively in respect to the length of the tracks: Ln3=400 m, Ln2=433 m, Ln1= 445 m, Lm3=676 m, Lm2=729 m, Lg1= 837 m, Lg2=966 m, Lg3=971 m, Lm1= 997 m.



## WALKING/RUNNING THROUGH THE CITY

As in the Tom Tykwer's film "Run Lola Run" (1998) in which the main heroine runs three times through the city along identical track, but with different interaction with places, figures and events, so in the case of the three samples, we did three runs/walks but along different tracks with different properties.



**Figure 5: Poster from the film "Run Lola Run", 1998.** (Accessed April 3, 2015.  
<https://reelcharlie.files.wordpress.com/2015/02/run-lola-run-quad-poster.jpg?w=450&h=337>)

The tracks point to the concrete potential of the place for different usage, short and moderate distances, but also possible integration into a continuous track which unfolds the structure of the fragments. Through the investigation of the physical structure, the number, the scope of the blocks, the total developed length of the street plans and the possible tracks inscribed into the selected samples within 400 m x 400 m, we pointed out the potential of the spatial practice in the selected samples of residential textures. The physical parameters undoubtedly point to the hidden potential of the specific situations of the city, the city that is disappearing. The overlapping of the spatial forms with the recreation forms (the forms of the spatial practice) enables conceiving the city in quite another way. Certainly, not each urban situation is complementary to an additional activity, but in the cases where the usual urban intensity is reduced and in which the traditional patterns are still active, in physical and social sense, their upgrading by an additional activity is possible. In conditions of low rise construction in which density is reduced, these urban pockets may become paradigms for a new urban integration of the modern activity and the city.



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# PLACES & TECHNOLOGIES 2015

## KEEPING UP WITH TECHNOLOGIES TO MAKE HEALTHY PLACES

2nd International Academic Conference

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University of Ljubljana, Faculty of Architecture, Slovenia  
Professional Association, Urban Laboratory, Serbia  
General Hospital, »Dr Franca Derganca« Nova Gorica, Slovenia

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*Dr Aleksandra Krstić - Furundžić, University of Belgrade, Faculty of Architecture, Belgrade, Serbia*

## ABOUT

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The conference examines the formation and presentation of knowledge on technologies and the environment, as well as ethical considerations and potential risks, developing solutions, expertise and discussions with respect to one of the most important strategic issues – **public health**. The stated objective point to the necessity of a multidisciplinary approach to this matter, identification and establishment of relationships between issues of technological development, environmental protection and social change. Consequently the conference program and research are based on the knowledge of several academic disciplines: engineering and technical sciences, medical sciences, humanities and social sciences.

The main tasks of the conference are defined in order to discuss the issues related to:

- (1) the future of society and places,
  - (2) design of healthy places, facilities and infrastructure in line with needs of inhabitants,
  - (3) development of institutions and regulations with an aim of creating healthy-supportive environment, and
  - (4) creation of favourable conditions for the advancement of innovation and business to achieve a good quality of life.
- Having in mind the conference goals and objectives, we wish to research and understand from the critical aspect the importance and role of technology in design and creation of healthy places through:

- (1) built environment perspective,
- (2) medical perspective,
- (3) technological perspective,
- (4) government perspective,
- (5) social perspective.

## TOPICS

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|---|--|
| 1. Architecture and Health                | 7. Environmental Friendly Transport                    |
| 2. Physical Planning and Quality of Place | 8. Building Technologies                               |
| 3. Lifetime Communities and Participation | 9. Adaptive Reuse and Urban Renewal                    |
| 4. Cultural Patterns and Sensitivity      | 10. Active Living and Health                           |
| 5. Health Intensive Care                  | 11. Health Promotion, Protection and Prevention        |
| 6. Inclusive and accessible environment   | 12. Social Networks and Human Basic Needs <sup>2</sup> |

Info: <http://placesandtechnologies2015.org/>

OFFICIAL LANGUAGE OF THE CONFERENCE - English

## KEYNOTE SPEAKERS

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**Dr Ružica Božović Stamenović**, *University of Belgrade, Faculty of Architecture, Belgrade, Serbia and National University of Singapore, Singapore*

Associate Professor, specialized in Danish housing at the Royal Danish Academy of Fine Arts, Copenhagen. Dr Božović-Stamenović has joined the University of Belgrade in 1989 and the National University of Singapore NUS from 2000-2011. Since 2011, she works as a full time Associate Professor in Belgrade and visiting academic lecturing in semester 2 in NUS, Singapore. Faculty Fellow at TAMU Center for Health Systems and Design, Texas A&M University, USA and Member of Executive Board of the UIA Public Health Group and GUPHA-Global University Programs in Healthcare Architecture. Her research interest is in Human Ecology-space and health, healthful architecture for mega-mature societies and health restoring design processes. Author of two books, a number of book chapters, peer reviewed journal articles and conference papers and a frequent speaker and invited lecturer at scientific conferences worldwide (USA, Australia, France, Germany, Denmark, Greece, Singapore, Malaysia, Korea, etc.). Dr Božović Stamenović is awarded with the 2014 Berkeley Prize Teaching Fellowship, endorsed by the University of California, Berkeley, Department of Architecture, College of Environment Design, for the academic course curricula titled: "Teaching Healthful Architecture". For her design work Dr Božović-Stamenović won major national architectural awards: October Salon (1998), Salon of Architecture (1998, 1991, 1991), Borba (1992), and a number of national and international competition prizes including the prestigious Aldo Rossi's Selection for the 2nd Biennale of Architecture Venice, Italy in 1985 and the national selection for the 8th Biennale of Venice Exhibition NEXT- Destruction & Construction in 2002.

**Dr Cor Wagenaar**, *Delft University of Technology, Delft, The Netherlands*

Associate Professor. He studied History at the University of Groningen and he was awarded a PhD in 1993 for a thesis entitled "Welvaartsstad in wording". De wederopbouw van Rotterdam 1940-1952 (about the rebuilding programme in the city of Rotterdam after Second World War). In his role as academic advisor, Wagenaar was closely involved in writing a book and organizing a conference entitled 'Architecture of Hospitals', which was held at the UMCG in 2005. He has been working as an associate professor in the chair History of Architecture and Urban Planning of the Faculty of Architecture and the Built Environment of Delft University of Technology. From 1st January 2014, Dr Cor Wagenaar has been appointed professor by special appointment in Architecture, Urbanism and Health at the Faculty of Arts of the University of Groningen. The Chair has been established by the Thomassen à Thuessink Foundation. Which fits into the Healthy Ageing strategic focus area of the University of Groningen and the UMCG. Dr Cor Wagenaar teaching and research mandate thus includes a study of the built environment, as well as research into architectural and urban planning designed to benefit the health of the urban population. In this way, he links the history of architecture and urban planning with current social-societal, policy-based and spatial developments in healthcare.

**Prof. Roger Riewe**, *Graz University of Technology, Institute of Architecture Technology, Austria*

Roger Riewe was trained at the RWTH Aachen. He then founded Riegler Riewe Architekten in Graz in 1987. Further offices were founded in Cologne in 2008 and in Katowice in 2010. The office has become an internationally renowned, with projects in Austria, Germany, Poland, Croatia, Korea, Switzerland and USA. The focus is on public buildings, infrastructure projects and urban design. The realized projects have received numerous international awards and distinctions. Roger Riewe has been guest professor in Prague, Houston, Barcelona, Aachen, Calgary and Graz. He has lectured worldwide with a specific focus on structure, space and technology. In 2001 he was appointed professor at the Graz University of Technology, where he is since then head of the Institute of Architecture Technology.

**Dr Pedro Ressano Garcia**, *Universidade Lusófona, Lisbon, Portugal*

Professor and Senior Architect in charge at Ressano Garcia Arquitectos. For the last years he has been researching the transformation of port cities and waterfront regeneration under the frame of ecology and healthy city. In his office in Lisbon, theory and practice are combined in projects of architecture, urban design and participation in international competitions. He started teaching at U.C. Berkeley, since 1997 to the present teaches in Lisbon at Universidade Lusófona and is a visiting teacher at International Workshops. Since 2010 is the coordinator of the European Workshop on Waterfront Urban Design. Awarded with Calouste Gulbenkian and Fundação Ciência e Tecnologia grants. He has published widely in books, magazines and international conferences. In 2010 received the Pancho Guedes Architecture Award.

**Dr Ilka Čerpes**, *University of Ljubljana, Faculty of Architecture, Ljubljana, Slovenia*

Architect, Doctor of Science and Assistant Professor in Urban Planning. She is the author of the monograph *Urbanistično načrtovanje* ('Urban Planning'), of the collection of papers *O urbanizmu* ('On Urban Planning') and co-author of several professional monographs. As part of teaching staff exchange, she was a visiting professor at five renowned European schools of architecture in France, Germany, Great Britain and Switzerland. She is Area Editor for Urban Planning at the international scientific journal *Igra ustvarjalnosti/The Creativity Game* and member of the Scientific Committee of the scientific conference *Pametni urbanizem*. At the Faculty of Architecture she carries out the tasks of Deputy Head of the Chair of Urbanism and works as tutor coordinator. She is the author of many architecture and urban design studies and projects, which have been recognised by the national and international professional community. She is a co-author of two retrospective exhibitions of architecture in the Kresija Gallery in Ljubljana and associated with renowned associations of architects. She was president of the Association of Architects of Ljubljana (DAL) for two terms of office, member of the commission for awarding the prestigious architecture award conferred by the Jože Plečnik Fund, member of several domestic and European competition panels and member of the Slovenian committee of the European association European.

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