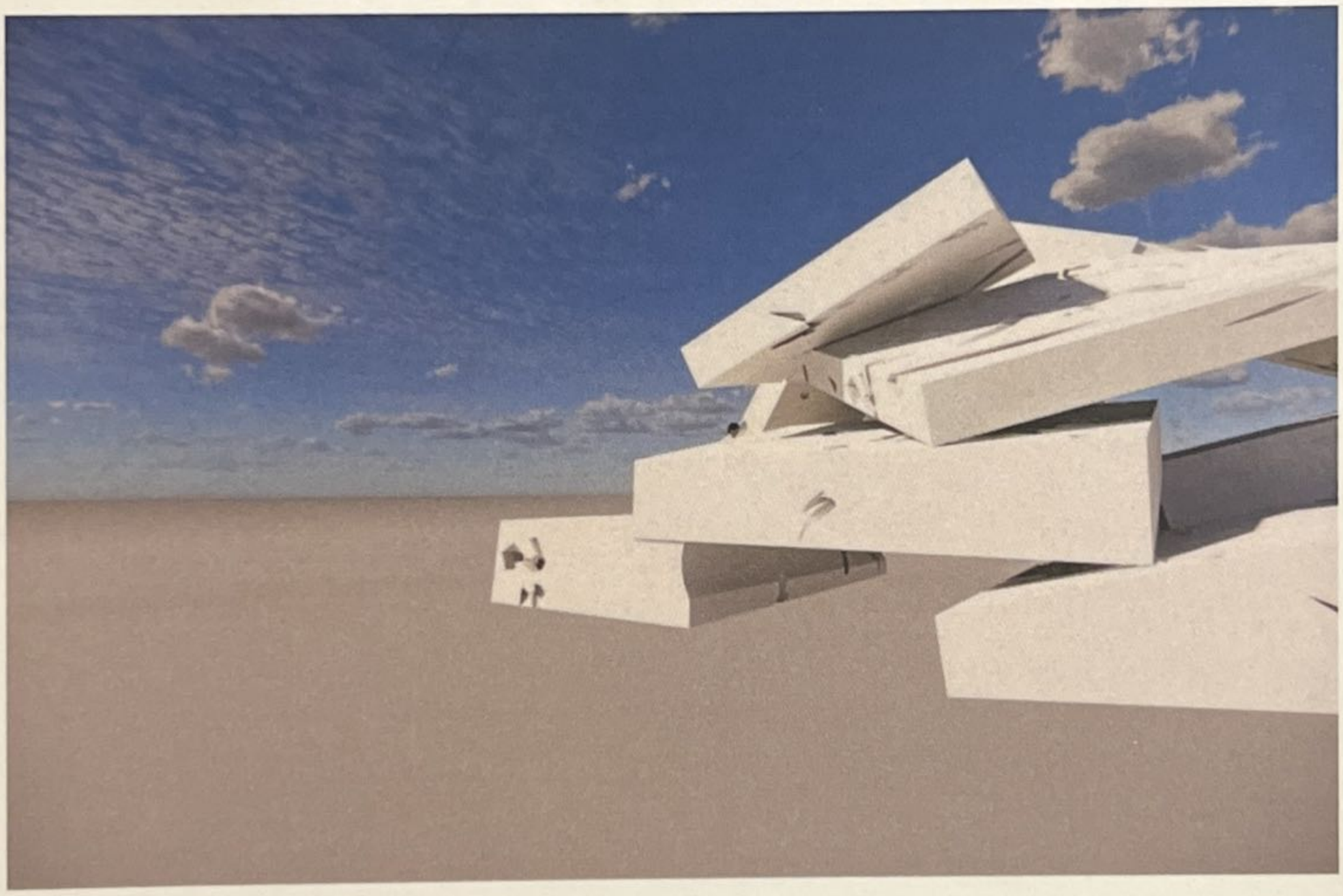
ONLINE INTERNATIONAL CONFERENCE

Conference proceedings

GLOBAL VILLAGE – SHELTER FOR RESILIENT LIVING



Organizer: University of Belgrade – Faculty of Architecture

Co-organizer: Balkan Architectural Biennale – BAB

Endorsed by ISOCARP

ISOCARP
Knowledge for Better Cities

GLOBAL VILLAGE - SHELTER FOR RESILIENT LIVING

Conference proceedings
ONLINE INTERNATIONAL CONFERENCE
9-10th of December 2021.

Organizer
University of Belgrade - Faculty of Architecture , SERBIA with a support of Ministry of Education, Science and Technological Development REPUBLIC OF SERBIA
CO-Organizer
Balkan Architectural Biennale – BAB

Endorsed by International Society of City and Regional Planners – ISOCARP

Editor: dr Tatjana Mrđenović, research associate, Faculty of Architecture in Belgrade
Keynote : prof. dr Fernando Jerez, SMAR ARCHITECTS

SCIENTIFIC COMMITTEE
RES. Asoc. dr Tatjana Mrđenović – University of Belgrade Faculty of Architecture – SERBIA
RES Asos.. dr Ana Perić – University of Belgrade Faculty of Architecture – SERBIA, ISOCARP
Prof. dr John Kiousopoulos – UNIWA – GREECE
prof. dr Tijana Vujošević – University of British Columbia – CANADA
prof. dr Aleksandra Stupar – University of Belgrade Faculty of Architecture – SERBIA
prof. dr Mihajlo Zinoski – Faculty of Architecture University SS Cyril and Methods -NORTH MACEDONIA
prof. dr Gabriel Pascariu – University of Architecture and Urbanism, Bucharest (UAUIM) – ROMANIA
dr Evinc Dogan, Akdeniz University, Antalya – TURKEY
prof. dr Florian Nepravishta – Faculty of Architecture and Urbanism Polytechnic University of Tirana (FAU UPT) – ALBANIA
prof. dr Karl Ludwig – GERMANY
prof. dr Guido Cimadomo – Escuela Técnica Superior de Arquitectura Universidad de Malaga – SPAIN
prof. dr Laura Verdelli – Universite de Tours – FRANCE
prof. dr Tom Rye – Edinburgh Napier University – UK
prof. Ranka Gajić, Faculty of Transport and Traffic Engineering – SERBIA
Jelena Marić – University of Belgrade Faculty of Architecture – SERBIA

ORGANIZATIONAL COMMITTEE
Tamara Radić – University of Belgrade Faculty of Architecture – SERBIA
Marko Stojanović – BAB – SERBIA

Publisher: Faculty of Architecture in Belgrade
For publisher: prof. Vladimir Lojanica, dean
Circulation: 50
ISBN 978-86-7924-276-1
Print DONAT GRAF , Serbia

TABLE OF CONTENTS:

THEMATIC SESSION I:
ARCHITECTURE OF/FOR ICONIC NOMADS: PATTERNS, FORMS, SYSTEMS.

THE GLOBAL VILLAGE: A STRUGGLE FOR A NEW SENSE OF PLACE
Gremina Elmazi, International Vision University, NORTH MACEDONIA.....3

NETWORK - SIMULTANEOUS FLOWS: MODEL OF THE SIMULTANEOUS PRESENCE AND ABSENCE IN URBAN SPACE
Bojana Jerković-Babović, Anastasija Simović, University of Belgrade – Faculty of Architecture, SERBIA;.8

CREATING A RESORT TOWN FOR 30 THOUSAND INHABITANTS
Naci Polat, Tourism Faculty, Pamukkale University, TURKEY; 14

FORMER MILITARY BUILDINGS - A SHELTER FOR REFUGEES FROM THE WARS
Stela Skrizhovska-Koleva, University of architecture, civil engineering and geodesy, BULGARIA; 15

SYNTACTIC ARCHITECTS IN LOMBARDY TODAY
Lorenzo Degli Esposti, director, Architectural & Urban Forum, Milan, ITALY;.....20

BALKAN APPEARANCE IN COLLECTIVE HOUSING VS THE OLD WORKER'S COLONY AND SOKOLANA BUILDING IN KRAGUJEVAC
Aleksandra Pešterac Phd, Natalija Bogdanović, Maja Ivanović, Faculty of Technical Sciences Novi Sad,SERBIA.....34

DIGITAL NOMADISM: towards a dematerialization of our daily life
María José Climent Mondéjar, Armando Cano Redondo, Projects Department, Superior School of Design, Murcia, SPAIN; 36

THEMATIC SESSION II:
FORMS OF MOVEMENT AND MOBILITY MANAGEMENT IN THE GLOBAL VILLAGE

HOW WILL THE 15-MINUTE CITY CONCEPT IMPACT URBAN VEHICLES
Vladimir Momčilović, Faculty of Transport and Traffic Engineering, University of Belgrade, SERBIA....47

MOBILITY AS A CULTURAL ENABLER - A READING OF ROME THROUGH VIA APPIA
Sophia Arbara, Roma Tre University.....53

MATCHING COHESION OBJECTIVES WITH TRANSPORT INFRASTRUCTURE PLANNING PRIORITIES: WESTERN BALKANS AND 'POST CRISIS' EU -GREEK STRATEGIC PERSPECTIVES
Dr. Ioulia Moraitoul, Prof. John Kiousopoulos, UNIWA Athens, GR.....57

THEMATIC SESSION III:
ORGANIZING AND ARRANGING THE GLOBAL VILLAGE: DEVELOPMENT INSTRUMENTS AND MODELS

NOMADIC AND REFUGEE LIVES: HOW CAN INNOVATIVE CITIES SUPPORT THIS KIND OF POPULATION?
E. Konstantopoulou, L.Tousia, University of Thessaly, Volos, GREECE.....57

COPING WITH MIGRANTS' FLOW IN BALKANS: CASE STUDY OF SERBIA RESOLVING MIGRANT'S HOUSING PROBLEMS
Dr Čolić Ratka; dr Mitrović Biserka; Faculty of Architecture in Belgrade, SERBIA.....58

URBAN GREENING AND INTERCULTURALITY
Lehmann, Katharina. Junior Professor, University of Lüneburg, GERMANY 66

MENTAL MAPPING OF A REGION IN ATHENS THROUGH LITERATURE AND PRESS
Georgina Eleftheraki, PhD Candidate, National Technical University of Athens, GREECE.....67

SECURITY AND/OR CONTROL IN THE PUBLIC SPACE To meet the new threats of urban life
Svetlana Batarilo, PhD; Ranka Gajić, PhD; Milena Kordić, PhD; University of Belgrade, SERBIA.....77

STRUCTURING THE URBAN PLANNING CURRICULA IN THE PANDEMIC FOR A ZERO-EMISSION AND SUSTAINABLE COMMUNITY
Turgay Kerem KORAMAZ, Burak BELLI, Eda BEYAZIT, Istanbul Technical University (ITU), TURKEY;.....89

SOME OPEN ISSUES OF INTEGRATION AND GHETTOISATION WITHIN THE FRAMEWORK OF SOCIAL HOUSING: THE EXAMPLES OF SERBIA AND DENMARK
Jasna Petrić, Principal Research Fellow, Tanja Njegić, Research Associate, IAUS, SERBIA 100

A CITY IS A RESILIENT MACHINE.
Author: dr Tatjana Mrdjenovic, Research Associate, Faculty of Architecture in Belgrade SERBIA.....108

THEMATIC SESSION IV:
DESIGN FOR/WITH WATER (COORDINATORS: LAURA VERDELLI AND GUIDO CIMADOMO)

WATER RESOURCES IN RURAL INDIGENOUS TERRITORY OF SAKALWAS (NICARAGUA)
José Luis Jamauca Fuertes, Colombia; Guido Cimadomo, ETS Arquitectura, Universidad de Málaga, SPAIN;.....122

A RIVER THAT UNITES, A RIVER THAT DIVIDES - UNESCO'S RIVERINE CULTURAL LANDSCAPES BETWEEN DIVERGENT SPECIFICITIES AND COMMON CHALLENGES
Laura Verdelli, Polytechnic School of the University of Tours, FRANCE.....128

H2O_SCAPES FRAGILE TERRITORIES
Marina Tornatora, Mediterranea University of Reggio Calabria, ITALY; Blagoja Bajkovski, University in Skopje, NORTH MACEDONIA;.....137

RESILIENT URBAN DESIGN OF OPEN PUBLIC SPACES SURROUNDING SMALL URBAN WATERCOURSES
Višnja Sretović Brković, Research Assistant, Faculty of Architecture, University of Belgrade, SERBIA; .138
RIVERS FOR URBAN REGENERATION, THE CASE OF THE KEBANA RIVER IN ADDIS ABABA (ETHIOPIA)
Ruben Garcia Rubio, Sonsoles Vela, Tulane School of Architecture, Tulane University, USA; 144
TOWARDS AN AMPHIBIOUS LANDSCAPE IN THE FACE OF NEW WATER DYNAMICS.
Diego Jiménez López, Juana Sánchez Gómez, Universidad de Málaga, SPAIN;... 145

THEMATIC SESSION V:
RESILIENT WAYS OF LIVING IN GLOBAL RISKS – COVID

ESCAPE FROM A PANDEMIC IN RURAL LIFE: A danger to the spatial reaffirmation of the village
Aleksandar Videnović, PhD, Miloš Arandjelović, PhD,Faculty of architecture University of Belgrade, SERBIA;.....148
RESILIENT OPEN SPACES IN URBAN RISKS
Giulia Annalinda Neglia, DICAR, Politecnico di Bari, ITALY.....149
COVID REFUGEES AND THE MOBILE GHETTO
Catalin Berescu, Research Institute for Quality of Life, ROMANIA... 150

SCHOOL OUTDOOR SPACES IN COVID-19 PANDEMIC RESTRICTIONS - OSIJEK'S PRIMARY SCHOOLS' ANALYSIS
Marija Krajnović, Josip Juraj Strossmayer, Sanja Lončar Vicković, University of Osijek, CROATIA;....151

AUGMENTED REALITY (AR): BRIDGING THE 'SOCIAL DISTANCE' IN UNDERSTANDING THE NEW RESILIENT LIVING
Okorie Chukwuemeka Charles, Alozie Daniel Ethelbert, NIGERIA;..... 161
VIRTUAL VS PHYSICAL OPEN PUBLIC SPACE IN THE ERA OF PANDEMICS - QUESTIONING THE PHENOMENON OF GLOBAL VILLAGE
dr Aleksandra Đukić, Associate professor, dr Jelena Marić, dr Branislav Antonić, University of Belgrade, Faculty of Architecture, SERBIA; 162

A CITY AS RESILIENT MACHINE.

Author: dr Tatjana Mrdjenovic, Research Associate, Faculty of Architecture in Belgrade SERBIA

Abstract

Public spaces are modelled by a dominant paradigm in a specific local milieu. Contemporary theories, like collaborative ones, define a framework for a profession to make improvements in everyday practice. However, power relations are sometimes strictly defined and cannot be remodelled in the same tempo as the need for investment realisation. We can say that participatory urban design needs time to redesign power relations to implement consensual solutions. Furthermore, there is a noticeable trend of places being designed more by power-over than power-to (Dovey,1999). This is the case in Serbia nowadays. The profession is seeking to find adequate methods that can substitute participatory ones to achieve sustainable places that are greener, more sociable and more profitable. Having this in mind, the main question of the research arises: Can the methods of space syntax theory replace participatory methods in the regeneration of open public spaces? The hypothesis is that the methods of space syntax need participatory ones to create more sustainable places. The main thesis is that a city is a resilient machine. The aims of the research are to prove that space can be a resilient machine if it is modelled with both space syntax and participatory methods and to show that space syntax methods in place creation can replace or support participatory ones when participation cannot be realised. This research will use the methodology of theory comparison as well as case study.

Keywords: placemaking, space syntax, participatory approach

1.0 INTRODUCTION

> "[...]we hope to show that inclusive public space does not have to remain an elusive ideal but can become a reality through various types of interventions." (Landman, 2020)

Public spaces have always been places of action. Over history, various practices of their creation were present. These practices are more instrumental or incremental, according to the main paradigm. The right for a place can be viewed as a violent action arising from the disjunction of a place, according to Tschumi (Tschumi,1996). Most of the participatory initiatives in Serbia did not lead to successful sustainable solutions. People's attachment to a specific place is a process that goes after design realisation. We can say that people are getting used by new places with mutual interaction. This is mostly practiced by modernist, instrumental machine.

There are disparities in the practiced machine and people's need for interaction. We can say that in an information society (Castells, 2000), people can easily acquire data and information of their needs, likes and dislikes and self and identity. However, nobody asks them how and where they want to spend time in an open space. This is mostly because participation is a time-consuming process which can lead to non-strategic solutions. Local governments are not willing to practice it, leaning on architects' expertise. However, architects' bounded rationality (Simon acc to Heywood 1997) cannot acquire people's needs and identities without any kind of interaction. Architects by themselves designed the most beautiful places in the world. But what happens when the identity of a place is ruined by new needs and interests or is lost? How do we deal with these kinds of stresses that are continuously ongoing without full participation?

The authors propose a new combination of methods in between space syntax and collaborative theories of urban design. This kind of combination and classification will lead to more resilient solutions for designing open spaces in times when participation is not fully implemented. We call it 'resilient city machine', which is both ars combinatoria and syntax participation.

2.0 WHAT KIND OF MACHINE IS A CITY? SPACE SYNTAX VS PARTICIPATORY PLACEMAKING

This chapter will discuss the relevant theories with regard to the main research hypothesis, keeping in mind that the city is a kind of machine that is moving towards a new paradigm. We are aware of the fact that most theories that see city as a machine are in the paradigm of the modernist approach. However, we are seeking for a machine that is appropriate to new modernism. As it is well known, new modernism is an upgraded modernism or, better yet, restructured, decoded and remodelled favoured values and principles of modernism. While in modernism, architects put forward universal values to be achieved, in new modernism, architects put particles and subjects on the table to agree on future values and syntax of the community places.

We can say that the modernist machine was decomposed, therefore collapsed into particles, so people had a great task to rebuild it for their own use. In new modernism, architects blended themselves to be respected again – respected, because architecture needs some kind of knowledge to be well constructed in either Healey's soft or hard pattern to remind that the collaborative approach in city planning, design and placemaking is shaped by Healey's theory and funded in Habermas's theory of communicative action. Habermas assumed that all people are citizens in the manner that democracy is something that is meant to be, without any kind of

alternative (Habermass, 1984). This is why a major critique of the Habermassian principles of communicative action is Foucault's power mapping, saying that people for themselves cannot break or redesign existing power relations using normative communication because it is not possible to enable open dialogue (Foucault,1971). On the other hand, we have thinkers like Dovey who said that placemaking is a process of power-to instead of power-over. Also, Healey admitted that bottom-up strategies have great weakness to achieve strategic dimension. Here, we can say that collaborative machine is very fragile and only usable for short distances (Healey, 1997).

Having this in mind, we see city as a machine, which can be structuralist, poststructuralist, collaborative or resilient. Resilience, one of the most dominant paradigms in the field, leans on the ecological systems theory, saying that every structure (physical, social, ecological) has phases of regeneration: growth, collapse, recomposition and new growth. It is similar to new modernism. The main questions of resilience are 'Where is the point of system collapse?' and 'What are the ways of recomposition or regeneration?' Modernist machine collapses under cultural and socioeconomic stresses, and we are still finding ways to regenerate it into new syntax – new modernism.

The resilience theory argues that systems collapse because they are too rigid/closed towards the environment and are not flexible to changes and stresses in the environment. The theory does not see collapse as a negative thing. Collapse is a chance for the system to redesign, regenerate and improve itself to be more flexible towards environmental changes (Holling, 1973) . Etymology says that resilience stands for being both resistful and fragile: resilire, 'to give up something', and resist, 'to be immune to something'. This means that resilience is the capacity to recover from system collapse, especially in the era of globalisation.

Globalisation, as it is described by Castells, gives both opportunities and threats to cities and towns. These characteristics seek for resilient towns and cities, structures that are both aware of their identity which put them into the global network and the elements in their structures that should be changed or replaced. But who represents the city? Who knows how to collapse and regenerate in a resilient way? Are they the citizens, architects, professionals, politicians, or administration?

Sustainability states that a city is an integrated system (machine) that has good governance, which enables the placement of solutions in the intersection of developmental sectors (economy, environment, society), meaning that this kind of machine has developed modalities for the public–private–civil sector. But what happens if the city in the area of globalisation does not have or is not able to develop this kind of partnership and collapses are happening? Creating partnerships represents the highest level of participation and collaboration that needs time, special knowledge and developed civil sectors such as NGOs who are ready for the Habermassian dialogue.

As discussed before, communication action is in most of the times utopia as it needs open communication without power-over, just with Dovey's power-to. Dovey claims that power-to is the main principle of sustainable peacemaking. Here, a particular question arises: Can we build sustainable places only with power-over? Theory, even a resilient one, says no. But what does praxis say? It is well known that most beautiful cities and places are created by power-over, and nowadays, they open spaces for bottom-up creation. We are free to say that architects with politicians created 'the place', while people create 'places' within it. Considering this, we believe that some kind of general schema must exist for people (maybe it is too strong to say citizens) to participate. But how should we create this global schema that enables resilience?

Here, we stand on the position that a city is a machine, according to Hillier's theory: 'Space is a machine and social logic of the space' (Hiller, 2007). We claim that this kind of machine has the most flexible and resilient elements, providing both 'the place' and 'spaces for collaborative places'. Most of the authorities within sustainable placemaking criticise Hillier's methodology just because it is more mathematical than participative. On the other hand, it is proven that places created by space syntax methodology provide a high level of vividity, sociability, profitability, security and management that are mostly characteristics of sustainable places. The thing which it is not fully proven is the level of attachment to the place of its users. Here, we see the major weakness of Hillier's theory. This weakness makes it vulnerable to the critiques of other theories, so let's make it more resilient by introducing new 'compatible' elements within it from Healey's collaborative theory.

Connectivity is the common factor for both theories. While connectivity in space syntax is related to physical space, in collaborative placemaking, connectivity is related to communicative place. Connectivity in Hillier's machine stands for the thesis that physical space can change behaviour, meaning it can make citizens from people,[1] while in collaborative theory, connectivity stands for the thesis that peoples' behaviour can be changed only through communicative space which creates consensual physical space. Therefore, collaborative theory uses the Habermassian theory and space to create a physical one, while space syntax uses city as a connectivity machine that changes behaviour, as well as power relations using the mathematical machine as architectural tool. What is more, Hillier's theory of connectivity is in line with Aristotle's theory of space: a network of singular places that can be more instrumental or incremental depending on the type of the network.

'[I]t is very difficult for more than one person to use a single sequence of spaces. It offers little in the way of community or privacy, but much in the way of potential intrusion. The branched pattern, on the other hand, offers a definite set of potential relations between community and privacy, and many more resources against intrusion'

(Hillier, 2007). Hillier's theory of space is based on the architects' creation of space, where the type of branch defines the type of place. The linear network is an instrumental one, while the dispersive creates more collaborative places, which is based on the assumption that the place with more branch connections is more sociable, individual and private (Hiller, 2007). This is based on the assumption of social control of the place where instrumentality is driven by singularity and linearity. On the other hand, non-linearity provides plurality, individuality and privacy (Figure 1). Opposite to Hillier's space machine, communicative action is not easy to achieve because there are always strong obstacles in communication that obstruct open communication. So what to do in these situations?

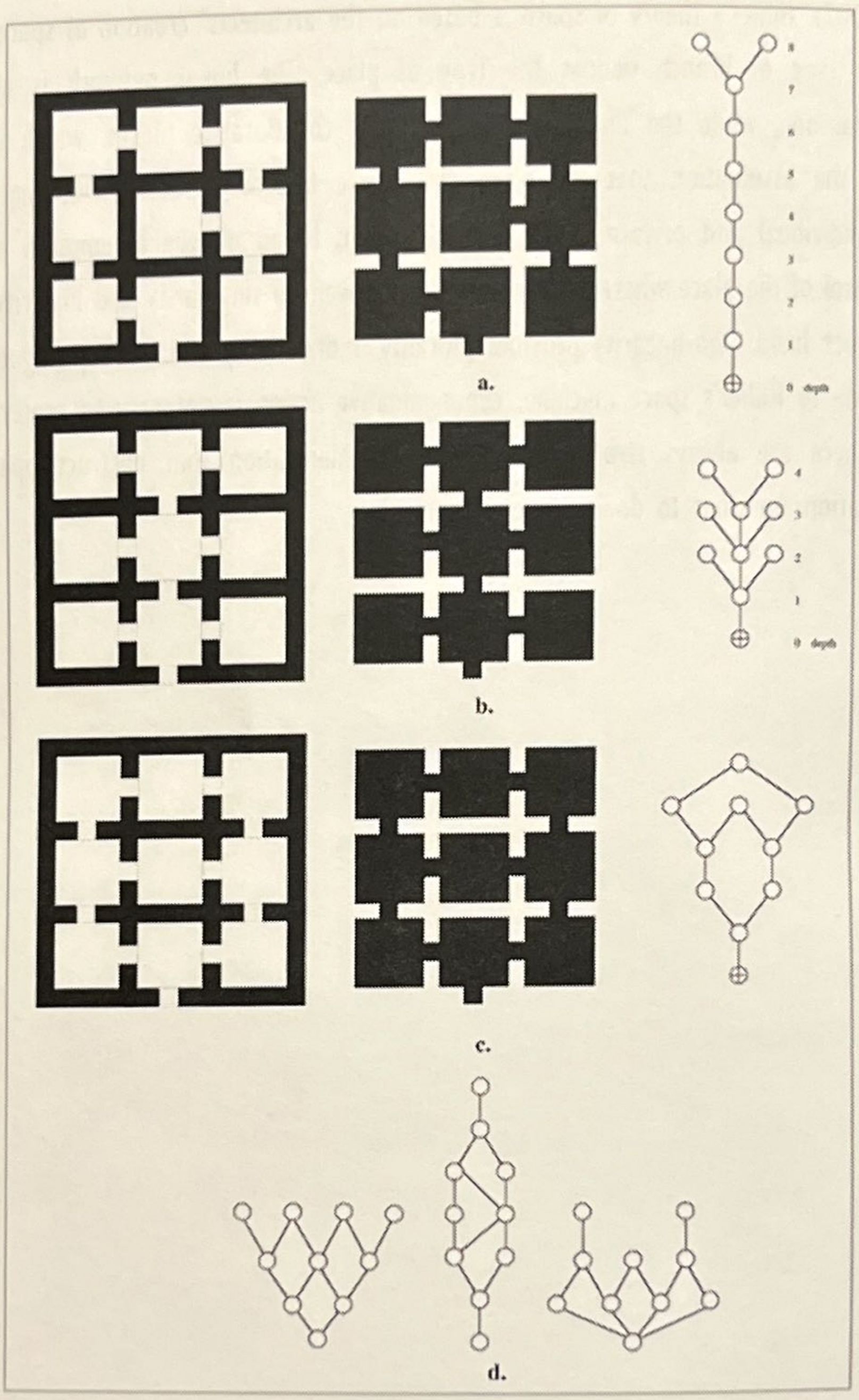


Figure 1. The patterns of permeability (Hiller, 2009: Figure 2.1, pp21)

Having this in mind, we believe that architects should use their tools to create a physical framework of space enabling flow of communication, changing peoples' behaviour and power relations. This place represents 'the place', opening plenty of options for creating 'places' using methods and tools from collaborative placemaking for further iterations. '[A]rchitectural space might be subject to limiting laws, not of a deterministic kind, but such as to set morphological bounds within which the relations between form and function in buildings are worked out' (Hillier, 2007). This is also in line with the main problem of collaborative strategies when participants do not have the capacity to see the wide picture and create a consensual vision, focusing only on accurate problems and short-term development (Healey, 1997).

Therefore, we propose that city as a resilient machine consists both of Hillier's mathematical connectivity, or as he says 'ars combinatoria,' creating Aristotle's place in a wide visioning sense, and of Healey's soft infrastructure, which is used for accommodating specific nodes in the network for actual people's needs and interests, making people more attached to the place. In this way, our machine is resilient to the stresses that come from

- real peoples' needs and interests,
- cultural differences,
- the need for intermodality,
- the need for making place special in regard to identity,
- ecological hazards and
- the need for real profit that each place has.

3.0 CONCLUSION

City as a resilient machine was researched within two paradigms, sustainability and resilience, and within two theories, space syntax and collaborative approach in urban planning and design. The research showed that the participatory approach to designing public spaces has limits in the barriers for open communication, such as disparities in power relations as well as the possibilities for not gathering strategic dimension in urban design solutions. Moreover, participation is a long, time-consuming and conflicting process; therefore, most of the local governments are not willing to deal with it. On the other hand, research also showed that lack of participation leads to not building the identity of the place, sense of belonging to the place, its maintenance, etc.

The main question of the research was 'Were there methods and tools in the theory of space and place that can replace or substitute the collaborative approach in designing urban places?' Therefore, the theory of space syntax was elaborated for several reasons: (a) syntax – meaning of the space; (b) concept of space, which is defined by Hillier as the network of places; and (c) providing a high level of vividity, sociability and profitability of place using space syntax methods.

Therefore, the thesis of the research has relevance as we need a kind of resilient machine which can continuously provide new syntax and meaning of the place in the iterative process of sustainable urban planning and design.In other words, new modernity can be achieved by approaching the city as a resilient machine. Machine stands for an instrumental approach to space and place, defined by architects – linearity and resilience for its flexibility to transform by itself using collaborative methods, i.e. by creating individual places – individuality. In other words, 'the place' (A, B, nodes) can be formed by profession using space syntax methods and techniques, while 'the places' (C nodes) should be created by community urban design using

participatory methods and techniques. C nodes can be defined by collaborative approach, while A and B do not have to. The proposed methods and techniques for C nodes are artistic workshops, integral urban design games, thematic weekly activities and cognitive maps. A resilient machine consists both of Hillier's mathematical connectivity, or as he says 'ars combinatoria', creating Aristotle's place in a wide visioning sense, and of Healey's soft infrastructure, which is used for accommodating specific nodes in the network for intimate places.

4.0 REFERENCES

Castells, M. (2000). The Rise of the Network Society. Oxford: Blackwell Publishing.

Dovey, K. (1999). Framing Places: Mediating Power in Built Form. New York: Routledge.

Foucault, M (1971). L'ordre du disours, Editions Gallimard

Habermas, J. (1984). The Theory of Communicative Action - Volume One: Reason and the Rationalization of Society.Boston: Beacon Press.

Healey, P. (1997). Collaborative Planning: Shaping Places in Fragmented Societies. London: MACMILLAN PRESS.

Heywood, A. (1997). Politics. Palgrave Mcmillan

Hiller, B. (2007). Space is the Machine. London: Space Syntax.

Hobbes T. (2006), Čovek i građanjin, /De Homine ; De Cive / , Hedone, Agape, Podgorica

Holling, C.S. (1973) Resilience and Stability of Ecological Systems, Annual Review of Ecology and Systematics, Vol. 4:1-23 (Volume publication date November 1973), https://doi.org/10.1146/annurev.es.04.110173.000245

Landman, K. (2020). Inclusive public space: rethinking practices of mitigation, adaptation and transformation. Urban Des Int 25, 211–214 https://doi.org/10.1057/s41289-020-00136-4

Tschumi, B. (1996). Architecture and disjunction, Cambridge : The MIT Press

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

711.4"20"(082)
71/72"20"(082)
502.131.1:711.4(082)

ONLINE international conference Global village - shelter for resilient living (2021 ; Srbija)

Conference proceedings / [Online international conference] Global village - shelter for resilient living, [9-10th of December 2021.] ; [Organizer University of Belgrade, Faculty of Architecture [and] Balkan Architectural Biennale – BAB] ; [editor Tatjana Mrđenović]. - Belgrade : Faculty of Architecture in Belgrade, 2021 ([Belgrade] : Donat graf). - [5], 165 str. : ilustr. ; 21 cm

Tiraž 50. - Str. [3]: A word from editor / Tatjana Mrđenović. - Napomene i bibliografske reference uz radove. - Bibliografija uz svaki rad. - Abstracts.

ISBN 978-86-7924-276-1

a) Просторно планирање - 21в - Зборници b) Урбанистичко планирање
- Одрживи развој - 21в - Зборници

COBISS.SR-ID 55695369