

PROSTOR

25 [2017] 2 [54]

ZNANSTVENI ČASOPIS ZA ARHITEKTURU I URBANIZAM  
A SCHOLARLY JOURNAL OF ARCHITECTURE AND URBAN PLANNING

SVEUČILIŠTE  
U ZAGREBU,  
ARHITEKTONSKI  
FAKULTET  
UNIVERSITY  
OF ZAGREB,  
FACULTY OF  
ARCHITECTURE

ISSN 1330-0652  
CODEN PORREV  
UDK | UDC 71/72  
25 [2017] 2 [54]  
171-440  
7-12 [2017]

POSEBNI OTISAK / SEPARAT | OFFPRINT

ZNANSTVENI PRILOZI | SCIENTIFIC PAPERS

306-315 **BOJANA BOJANIĆ**  
**OBAD ŠČITAROCI**  
**TAMARA ŽANINOVIĆ**  
**MASSIMO SARGOLINI**

DESIGN OF MEMORIALS  
– THE ART OF REMEMBERING  
METHOD OF PLACE REGENERATION  
PRELIMINARY COMMUNICATION  
UDC 725.945.1(497.5)“19/20”

STVARANJE MEMORIJALA  
– UMIJEĆE SJEĆANJA  
METODA OBNOVE MJESTA  
PRETHODNO PRIOPCENJE  
UDK 725.945.1(497.5)“19/20”



Af



FIG. 1 CONTEMPORARY MEMORIALS IN CROATIA: MEMORIAL BRIDGE IN RIJEKA, WATER TOWER MEMORIAL IN VUKOVAR AND GORDAN LEDERER MEMORIAL IN HRVATSKA KOSTAJNICA  
 SL. 1. SUVREMENI MEMORIJALI U HRVATSKOJ: MOST HRVATSKIH BRANITELJA U RIJECI, MEMORIJAL VODOTORANJ U VUKOVARU I MEMORIJAL GORDANA LEDERERA U HRVATSKOJ KOSTAJNICI

**BOJANA BOJANIĆ OBAD ŠĆITAROCI<sup>1</sup>, TAMARA ZANINOVIĆ<sup>1</sup>, MASSIMO SARGOLINI<sup>2</sup>**

<sup>1</sup>UNIVERSITY OF ZAGREB  
FACULTY OF ARCHITECTURE  
CROATIA – 10000 ZAGREB, KAČIĆEVA 26

<sup>2</sup>UNIVERSITY OF CAMERINO  
SCHOOL OF ARCHITECTURE  
ITALY – 63100 ASCOLI PICENO, VIALE DELLA RIMEMBRANZA

bbojanic@arhitekt.hr  
tmaric@arhitekt.hr  
massimo.sargolini@unicam.it

PRELIMINARY COMMUNICATION  
UDC 725.945.1(497.5)“19/20”

TECHNICAL SCIENCES / ARCHITECTURE AND URBAN PLANNING  
2.01.02. – URBAN AND PHYSICAL PLANNING

ARTICLE RECEIVED / ACCEPTED: 12. 11. 2017. / 13. 12. 2017.

<sup>1</sup>SVEUČILIŠTE U ZAGREBU  
ARHITEKTONSKI FAKULTET  
HR – 10000 ZAGREB, KAČIĆEVA 26

<sup>2</sup>SVEUČILIŠTE U CAMERINU  
ŠKOLA ARHITEKTURE  
ITALIJA – 63100 ASCOLI PICENO, VIALE DELLA RIMEMBRANZA

bbojanic@arhitekt.hr  
tmaric@arhitekt.hr  
massimo.sargolini@unicam.it

PRETHODNO PRIOPCENJE  
UDK 725.945.1(497.5)“19/20”

TEHNIČKE ZNANOSTI / ARHITEKTURA I URBANIZAM  
2.01.02. – URBANIZAM I PROSTORNO PLANIRANJE

ČLANAK PRIMLJEN / PRIHVACEN: 12. 11. 2017. / 13. 12. 2017.

## DESIGN OF MEMORIALS – THE ART OF REMEMBERING METHOD OF PLACE REGENERATION

## STVARANJE MEMORIJALA – UMIJEĆE SJEĆANJA METODA OBNOVE MJESTA

COLLECTIVE MEMORY  
MEMORIALS  
POST-WAR  
PUBLIC SPACE

KOLEKTIVNO PRISJEĆANJE  
MEMORIJALI  
POSLIJERATNI  
JAVNI PROSTOR

The paper continues on-going research of memorials by putting typological identification from previous studies into the context of post-disaster and post-war place regeneration. The aim is to explore the ‘concept of manipulation’ on case studies through choreography of motion as a design tool for memorials.

Članak nastavlja istraživanje memorijala, prema postavljenoj tipološkoj identifikaciji iz ranijih istraživanja, u kontekstu problematike obnove razorenog mjesta. Cilj je istražiti na primjerima ‘koncept manipulacije’ putem koreografije kretanja što postaje način stvaranja memorijala.



## INTRODUCTION

### UVOD

*"Events are bigger than people think."*

*François Guizot<sup>1</sup>*

**D**isaster risk reduction [DRR] is a systematic approach and disaster management paradigm. UN agencies define it as: "The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development."<sup>2</sup> Under that approach in March 2015 UN adopted the Sendai Framework for disaster risk reduction 2015-2030 with seven global targets and four priorities for action. One of the concepts is a priority to "Build Back Better" in recovery, rehabilitation and reconstruction.<sup>3</sup> Research subject – the notion of memorials in public space design – supports these aims and priority to build back better through creation of public places with associative and healing characteristics for citizens and society.

Frameworks for disaster neglect the effects that war brings to urban environments which have the same consequences as natural hazards. In the post-war context, reducing post-disaster impact refers to issues of emigration, poverty and psychological impressions connected to lost persons and places. This work analyses the post-1990s-war memorials in Croatian context as a method of dealing with the past and at the same time preparing public places for the future. It points out the importance of urban regeneration through

public space as a method of collective and individual healing.

Regeneration is explored through two notions: the notion of recovery, as bringing back lost and invisible, and the notion of rehabilitation as bringing into better condition existing character or mark.

This research is a part of Heritage Urbanism research project<sup>4</sup> and builds upon the framework of memorials as cultural landscapes.<sup>5</sup> Heritage urbanism method was used for further analysis of memorials in which identity factors (regeneration intention, setting type and identification concept) were used to define the models of healing interventions and the criteria for evaluating their design. Results show the significance of location in cases of post-war memorials – regardless if they are situated in landscape or in urban areas. Therefore, case studies were evaluated through the criteria of accessibility, scale and motion manipulation.

This paper is also part of wider topic called Urbanscape Emanation formed at the Faculty of Architecture, the University of Zagreb. Urbanscape Emanation examines the addition of time and structure to space and the transition from static to dynamic models achieved by creating awareness about place.<sup>6</sup> One of the dynamic characteristic of urbanscape is movement experience therefore this research correlates the notion of memorials and walk-space<sup>7</sup>. Memorials are dynamic models of public spaces and through moving in them we achieve awareness of past and a glimpse of future. Main design tools are: 1. elements of focus, 2. vista and 3. walking choreography. Relation and organization of these three combined elements explain "the concept of manipulation" through motion in the contemporary memorial design.

<sup>1</sup> VIRILIO, 2000: iv

<sup>2</sup> \*\*\* 2004: 17

<sup>3</sup> <http://www.unisdr.org/we/coordinate/sendai-framework>

<sup>4</sup> Heritage Urbanism – Urban and Spatial Models for Revival and Enhancement of Cultural Heritage is the project financed by the Croatian Science Foundation [HERU HRZZ-2032] and is been carrying out at the Faculty of Architecture, University of Zagreb, principal investigator prof. Mladen Obad Šćitaroci, Ph.D.

<sup>5</sup> BOJANIĆ OBAD ŠĆITAROCI, MARIĆ, 2015

<sup>6</sup> Concept of Urbanscape Emanation is a series of the research carried out at the Department of Urban Planning, Spatial Planning and Landscape Architecture at the Faculty of Architecture, University of Zagreb since 2010 through the Landscape Architecture Workshops, Diploma Thesis (on master and doctoral programs) under the mentorship of prof. Bojana Bojanic Obad Šćitaroci, Ph.D.

<sup>7</sup> MARIĆ, BOJANIĆ, 2012

<sup>8</sup> SEKULIĆ, 2013

<sup>9</sup> [http://www.staff.amu.edu.pl/~ewa/Memorials\\_in\\_the\\_Age\\_of\\_the\\_Anthropocene\\_abstracts.html](http://www.staff.amu.edu.pl/~ewa/Memorials_in_the_Age_of_the_Anthropocene_abstracts.html)

## BACKGROUND

### POLAZIŠTA

Impact factors causing the need for disaster rehabilitation and recovery in societies and cities can be distinguished in two categories: natural (earthquakes, volcanoes, floods, hurricanes, landslides, avalanches, wildfires) and man-made (wars, terrorist attacks, accidents). Memorials as a type of monuments serve the purpose of not only remembrance, but also present a way to deal with the past events that provoke negative emotions and enable a glimpse into positive future. In post-disaster context memorials give to cities new public places with added urban and social values. This means that memorials, as anthropogenic places designed in landscapes or urban contexts always with the associative character, serve for remembering and mediation and at the same time for forgetting and oblivion of negative emotions. They bring a new identity and new integrity to places and enable conciliation and healing of people and society (Table I).

The previous work presented in the paper 'Memorials as cultural landscapes' in the conference proceeding book 'Cultural Heritage – Possibilities for Spatial and Economic Development' is an overview of typologies and design models of memorials. Examples used for typological identification are here correlated to regeneration of place through: regeneration intention, setting differences between urban and natural landscapes and symbolic design identification sign or landmark (Table II).

It is a question whether the memorial works as a rehabilitation or recovery and whether they become a sign/stamp or a landmark in the area. The sign/stamp is related to a memorial that is created as a new creation in area. There are two types of landmarks: the first is a memorial where the existing symbolic element is integrated into the design, the second type is a memorial that creates new public space that has an artistic value for becoming a new identity.

Analyzing literature and examples related to memorials it is evident that tragic and war memorials dominate as a category. Among them most explored in European history are the post-second-World-War memorials. This is also applied to the Balkan context where recent studies show high interest for monuments to WWII built as a blend of art and architecture across the former Socialist Federal Republic of Yugoslavia.<sup>8</sup> Within the premise of cultural identity theory that every identity is socially controlled and culturally conditioned, and that identity is created and developed from inside of culture and political situ-

TABLE I DECONSTRUCTED NOTION OF MEMORIALS

TABL. I. DEKONSTRUKCIJA POJMA MEMORIJALA

| Term           | Dictionary definition   | Synonyms                         | Antonyms               |
|----------------|---|----------------------------------|------------------------|
| REGENERATION   | To effect a complete moral reform in. To re-create, reconstitute, or make over, especially in a better form or condition.   | Reconstruction<br>Transformation | Decline<br>Stagnation  |
| REHABILITATION | To restore one's reputation or character in the eyes of others.   | Reestablishment<br>Healing       | Damage                 |
| RECOVERY       | The regaining of or possibility of regaining something lost or taken away.  | Return<br>Conciliation           | Departure              |
| REMEMBRANCE    | A retained mental impression. The length of time over which recollection or memory extends  | Reminiscence<br>Flashback        | Ignorance              |
| IDENTITY       | The fact of being whom or what a person or thing is.  | Identification<br>Integrity      | Opposition             |
| MEMORIAL       | A statue or structure established to remind people of a person or event. They are anthropogenic places designed in landscapes or urban contexts, always with the associative character. | Remembering<br>Mediation         | Forgetting<br>Oblivion |

ation, these monuments have common characteristics formed by time and context when they were erected. That makes them specific research topic connected more to history than future. Therefore, the case studies for this paper are contemporary post-war memorials in Croatia related to recent events, so that conclusions could be used in future new memorials and public space interventions. All three case studies relate to persons and events from Croatian War of Independence which took place from 1991 to 1995.

### CONTEMPORARY POST-1990S-WAR MEMORIAL CASE STUDIES IN CROATIA

#### SUVREMENI PRIMJERI MEMORIJALA POSLIJE DOMOVINSKOG RATA U HRVATSKOJ

*"In helping humanity to survive we must wake up our dormant memorials, and transform them into useful sites for critical and inclusive public discourse concerning memory of the past, for sharing, exchanging and confronting our positions concerning the present and the future..."*

*Krzysztof Wodiczko<sup>9</sup>*

The core of this research constitutes a survey on the concept of recovery and rehabilitation in memorials. The purpose of this research is to build a path through which we could identify and propose a new role of memorials as regeneration of public places, within the changed social and political context.

Selected examples derive from Table II where three types of memorial design are defined in relation to their regeneration intention (rehabilitation or recovery), setting (urban or landscape context) and identification (designed sign, integrated landmark or designed landmark) as a process of attributing qualities and characteristics of memorials.

TABLE II MEMORIAL EXAMPLES ANALYZED THROUGH FACTORS OF IDENTITY

1. REGENERATION INTENTION (REHABILITATION OR RECOVERY): REHABILITATION – RESTORING CHARACTER; RECOVERY – REGAINING LOST. 2. SETTING (URBAN OR LANDSCAPE CONTEXT). 3. IDENTIFICATION (DESIGNED SIGN, INTEGRATED LANDMARK OR DESIGNED LANDMARK): DESIGNED SIGN – ADDING NEW SYMBOL OR MONUMENT; INTEGRATED LANDMARK – INCLUDING EXISTING RECOGNIZABLE MARK IN NEW DESIGN AND USAGE; DESIGNED LANDMARK – NEW RECOGNIZABLE PUBLIC SPACE DESIGN.

Tabl. II. ANALIZA ČIMBENIKA IDENTITETA NA PRIMJERIMA MEMORIJALA

1. NAMJERA REGENERACIJE (OPORAVAK ILI OŽIVLJAVANJE): REHABILITACIJA – OPORAVAK KARAKTERA; OŽIVLJAVANJE – OŽIVLJAVANJE IZGUBLJENOG. 2. SMJEŠTAJ (URBANI ILI PEJSAŽNI KONTEKST). 3. IDENTIFIKACIJA (PROJEKTIRANI ZNAK, INTEGRIRANI REPER ILI PROJEKTIRANI REPER): PROJEKTIRANI ZNAK – DODAVANJE NOVOG SIMBOLA ILI SPOMENIKA; INTEGRIRANI REPER – UKLJUČIVANJE POSTOJEĆEG PREPOZNTLJIVOG OBILJEŽJA U NOVO UREĐENJE I KORIŠTENJE; PROJEKTIRANI REPER – NOVI PREPOZNTLJIVI PROJEKT JAVNOG PROSTORA.

| MEMORIAL<br>[name, city, country, author, year of the project or competition / year of construction]                                    | REGENERATION INTENTION |          | SETTING |           | IDENTIFICATION |                     |                   |
|---|------------------------|----------|---------|-----------|----------------|---------------------|-------------------|
|   | Rehabilitation         | Recovery | Urban   | Landscape | Designed Sign  | Integrated Landmark | Designed Landmark |
| Memorial Bridge dedicated to veterans, Rijeka, Croatia, 3LHD, 1997/2001   |                        | +        | +       |           |                |                     | +                 |
| Water Tower Memorial of Independence War, Vukovar, Croatia, Radionica Arhitekture, 2007 and 2015  | +                      |          | +       |           |                | +                   |                   |
| Gordan Lederer Memorial, Čukur Hill, NFO, 2014/2015   |                        | +        |         | +         | +              |                     |                   |
| Memorial to murdered Jews in Europe, Berlin, Germany, Peter Eisenman, 1997/2004   | +                      |          | +       |           |                |                     | +                 |
| Vietnam Veteran Memorial Wall, Washington, USA, Maya Lin, 1981/1982   |                        | +        | +       |           | +              |                     |                   |
| General Maister Memorial Park, Ljubno ob Savinji, Slovenia, Bruto, 2005/2007  | +                      |          |         | +         |                |                     | +                 |
| National Memorial, Zagreb, prof. Nenad Fabijanic and design team, 2016  | +                      |          | +       |           | +              |                     |                   |
| Jefferson National Expansion Memorial, St. Louis, USA, 1947 arch, 2007 MVVA park re-envision / 1935 a park, 1963-65 arch, 2018 new park | +                      |          | +       |           |                |                     | +                 |
| Esterwagen Memorial to mass killings, Esterwagen, Germany, WES Landscape Architecture and collaborators, 2008/2011                      | +                      |          |         | +         | +              |                     |                   |
| National 9/11 Memorial, New York, USA, Michael Arad, Peter Walker and Partners, 2003/2006-2011  | +                      | +        | +       |           |                |                     | +                 |
| Emblematic Monument for 150 <sup>th</sup> Anniversary of the Battle of Puebla, Puebla, México, TEN Arquitectos, 2011/2011               |                        | +        | +       |           |                |                     | +                 |
| Steilneset Memorial for the people burned as withches, Vardø, Norway, Peter Zumthor and artist Louise Bourgeois, /2011                  | +                      |          |         | +         |                |                     | +                 |
| 11 March Memorial for the victims of terrorist attack at Atocha Station, Madrid, Spain, Estudio FAM, /2007                              |                        | +        | +       |           | +              |                     |                   |
| Canadian Firefighters Memorial for fallen in the line of duty, Ottawa, Canada, PLANT Architects, 2010/2012                              |                        | +        | +       |           | +              |                     |                   |
| Kornati Memorial to fallen firefighters, Kornati island, Croatia, Nikola Bašić, 2010/2010   |                        | +        |         | +         |                |                     | +                 |
| The Creto di Burri memory of a lost city in earthquake, gibellina, Italy, Alberto Burri artist, 1985-89/2006                            |                        | +        |         | +         |                |                     | +                 |

### RECOVERY WITH URBAN DESIGNED LANDMARK: MEMORIAL BRIDGE IN RIJEKA

OŽIVLJAVANJE URBANIM PROJEKTIRANIM REPEROM: MOST HRVATSKIH BRANITELJA U RIJEKI

*"The definition of the public space was achieved only through the structure of the bridge itself, which at the same time must be recognized as a memorial object... This urban public hybrid has changed the vista of the city (in the material as well as mental sense) and has achieved its goal of being a Memorial Bridge."*

3LHD<sup>10</sup>

Memorial Bridge in the city of Rijeka is a design solution by the author 3LHD (team: Silvije Novak, Marko Dabrović, Saša Begović, Tatjana Grozđanić Begović, Sinisa Glusica, Koralka Brebric Kleončić, Milan Štrbac) completed 2001 (competition 1997) in honor and memory of veterans from the Croatian War of Independence. The new urban pedestrian bridge is placed in the central urban area between historical urban core and Delta area where the river Rječina connects with the

Adriatic sea. The location itself is not directly connected to specific events at that point. The memorial is designed as a landmark model because in addition to bridge design includes vertical extension and area for sitting.

<sup>10</sup> <http://www.3lhd.com/en/project/memorial-bridge>

<sup>11</sup> "Our symbol is this oak, on our land, defiant and unbending. Our symbol is this wounded Water Tower. It's placed on a hill from which it can see deep to the East, but can also be seen far from the East... We are not touching the tower, but emphasizing its message, by parks and other architectural elements, making it most clear. Everything we are planning serves to that. The ceremony entrance stains, the cut towards the street forcing us to bend in front of it. Also, the museum being placed below the park, not to compete with the tower. And the amphitheater. Names of those who gave everything they had are written in the foundations. We give honor to everyone to whom the tower meant everything those smoky days. The rest should be a park, a game place, a place for a new beginning." [<https://www.radionica-arhitekture.hr/memorijal-vodotoranj-1>]

<sup>12</sup> "We barely touch the Water Tower... The panoramic elevator leads us to the memorial room in place of the former water tank. In the room, on the screens, we can see documentary videos from the period of the city and Water Tower suffering. A long zig-zag path leads us to the roof, to a viewpoint from which we can see the city which is renewed. And we can see the Danube." [<https://www.radionica-arhitekture.hr/memorijal-vodotoranj-2>]

Analysis of memorial design:

A. accessibility: in the center of the city, public use

B. scale: public place (bridge as a linear square), applied method is a construction of a new infrastructure (scale of the city is 128.500 people)

C. manipulation concept:

1. elements of focus: new vertical extension at the end of a bridge
2. vista: slit in the wall is inward looking, canalscape is outward looking
3. walking choreography: access from the city center, circumventing a glass fence on west, crossing a bridge (movement through), circumventing a wall on east and stopping (sitting on benches) on terrain vague.

The Memorial Bridge is a recovery example in urban context and identified as designed landmark, which assumes the role of public urban space. Intervention is not at the scene of the event but on chosen setting where it creates an experience that enables awareness of what is intended. It is located in response to the current needs of the city for pedestrian motion. Its purpose is determined by the movement through new urban infrastructure. Crossing the bridge from the center of the city is symbolic vertical monument and around it the place of rest and contemplation. Existing place east from the memorial bridge, called Delta in Rijeka, is a terrain vague waiting for a new use. With this bridge, a new city link adds value with greater connectivity and the ability to revive a terrain vague.

#### REHABILITATION WITH URBAN INTEGRATED LANDMARK: WATER TOWER MEMORIAL IN VUKOVAR

OPORAVAK URBANIM INTEGRIRANIM REPEROM: MEMORIJALNI VODOTORANJ U VUKOVARU

*Water Tower 1*

*"We are not touching the tower, but emphasizing its message, by parks and other architectural elements, making it most clear."*<sup>11</sup>

*Water Tower 2*

*"We barely touch the Water Tower... A long zig-zag path leads us to the roof, to a viewpoint from which we can see the city which is renewed."*<sup>12</sup>

*Radionica Arhitekture*

For Water Tower Memorial in the city of Vukovar designed by Radionica arhitekture there are two projects, one from 2007 (Kristina Jeren, Kata Marunica, Goran Rako, Nenad Ravnić) and second from 2015 (Fani Frković, Sara Jurinčić, Tena Knežević, Dora Kruselj,

TABLE III DESIGN ANALYSIS AND COMPARISON OF CASE STUDIES OF POST-1990S-WAR MEMORIALS IN CROATIA  
TABL. III. ANALIZA I USPOREDBA PRIMJERA POSLIJERATNIH MEMORIJALA DOMOVINSKOG RATA U HRVATSKOJ

| Analysis                                    | Memorial Bridge, Rijeka   | Water Tower Memorial, Vukovar  | Gordan Lederer Memorial, Hrvatska Kostajnica  |
|---|---|--|---|
| Regeneration                                | Recovery-urban-designed landmark  | Rehabilitation-urban-integrated landmark   | Recovery-landscape-designed sign  |
| Conclusion on Regeneration: Healing model   | HEALING CULTURE   | HEALING HISTORY  | HEALING NATURE  |
| A. ACCESSIBILITY                            |   |  |   |
| Location                                    | In the center   | in the center proximity  | on the periphery  |
| Distance from center                        | 200 m from main pedestrian street   | 1 km from center   | 3.22 km from the center   |
| Usage                                       | Urban public place and infrastructure   | Urban park   | Park in natural landscape   |
| CONCLUSION                                  | PUBLIC  | PUBLIC   | VISITING  |
| B. SCALE                                    |   |  |   |
| City (inhabitants)                          | 128,500   | 27,500   | 2,700   |
| Intervention                                | Pedestrian bridge   | Park and museum  | Sculpture in landscape  |
| CONCLUSION                                  | PUBLIC: EXPOSED   | PUBLIC AND VISITING: EXPOSED AND INTIMATE  | EXPLORATORY AND VISITING: INTIMATE  |
| C. CONCEPT OF MANIPULATION                  |   |  |   |
| C.1. focus                                  | Vertical extension of bridge  | Water tower  | Sculpture   |
| C.2. vista                                  | Canalscape and Urbanscape   | Townscape, Riverscape and Landscape  | Townscape and Riverscape  |
| Conclusion on walkscape: Vista vs. focus    | Vista through whole memorial  | Vista views from the focus and panoramic on the top of the focus   | Townscape from the memorial area and Riverscape from the focus  |
| C.3. walking choreography                   | Horizontal, directed and circumventing around the focus with possibility to pass through. | Wandering in park around the focus, vertical and zig-zag through focus and circular on the top vista point of focus. | Directed on the meandering path and wandering around focus, with possibility to look through the focus. |
| Conclusion on walkscape: movement vs. focus | Towards, through and around focus   | Around the focus, through the focus and on the focus   | Towards the focus and around focus  |

Marin Mišan, Klara Nikšić, Jelena Prokop, Goran Rako, Ana Ranogajec, Josip Sabolić). It is a symbol of the Croatian War of Independence and the battle for Vukovar. Vukovar is a city on the boarder of Croatia with Serbia. Placement of the memorial area is at the place of an event where war destruction took place. It is an existing water tower in a renewed urban park at the entrance to the periphery settlement which was a target in the battle.

Analysis of memorial design:

A. accessibility: in the city, 1 km from city center (2 km from periphery)

B. scale: scale of a public park of 1.5 ha (scale of the city 27.500 people)

C. manipulation concept:

1. elements of focus: 50 m high water tower
2. vista: tower inward looking and in addition to that an exhibition will be added in the tower according to the project two (2015), urbanscape – city and river panorama will be outward looking from a tower
3. walking choreography: access from the urban park without directed movement,



vertical lift movement combined with zig zag walking inside the tower and circulation on the top of the tower.

Water Tower Memorial is a rehabilitation example in urban context and identified with integrated landmark which exist as a symbol. Water Tower as a symbol is integrated in both projects through public space that recognizes the new role of water tower in restored city and landscape. Intervention is on the place of the event, stressing the experience of the remembrance and connecting it with an idea of the museum. New creation is achieved through the motion of going up the tower to experience the vista on the contemporary city and what it may be in the future. Added value for the city is in new perspectives of public space established through the memorial park, museum and water tower.

RECOVERY WITH LANDSCAPE DESIGNED  
SIGN: GORDAN LEDERER MEMORIAL  
IN HRVATSKA KOSTAJNICA

OŽIVLJAVANJE PEJSAŽNIM PROJEKTIRANIM  
ZNAKOM: MEMORIJAL GORDANA  
LEDERERA U HRVATSKOJ KOSTAJNICI

*"Lost lens on the edge of the Čukur hill, above the Una valley. The lens is cracked and pushed in the grass, Access path is directed toward the monument, stops about 10 meters before him, thus leaving monument intact and surrounded by emptiness. Crossing the meadow in front of the monument is left to the decision of the visitor; to stop at the end of the path and return the same way or step toward the goal – the monument and look at Una valley through the lost lens of Gordan Lederer."*

NFO<sup>13</sup>

Gordan Lederer Memorial on the Čukur hill is a project design called "Broken Landscape" by NFO (Kata Marunica, Nenad Ravnić, Nikica Pavlović, Filip Vidović, Dragan Mileusnić, Željko Serdarević) and sculptor prof. Petar Barišić, finished in 2015 (2014 competition). It is erected in a memory of a person, a reporter from the front line who was killed on the 10<sup>th</sup> of August 1991 by a sniper shot.

Analysis of memorial design:

A. accessibility: in the landscape at the place of an event, 3.22 km from the urban center and border crossing between Croatia and Bosna and Hercegovina.

B. scale: scale of a park and a sculpture (scale of the city of Hrvatska Kostajnica is 2.700 people)

C. manipulation concept:

1. elements of focus: sculpture
2. vista: on the town and riverscape

3. walking choreography: meandering path leading towards the sculpture, ending with the text before the sculpture and leaving field between the path and sculpture to wander and enjoy vistas in free movement not lead by pathways.

Gordan Lederer Memorial creates public space in nature – a viewpoint with memory. The intervention is at the scene of the event, on the topography that enabled this event. Awareness is achieved in a number of ways: directly symbolizing a person through sculpture, inscriptions, a path that lengthens the way to contemplating and ultimately the paradox of a path that does not come to sculpture, allowing wandering and discovery of new vistas. Its purpose is determined by movement and at the end of that movement is the vista area. This is primarily the place of contemplation that suits the context. The view on the sculpture from the settlement is not noticeable, but the sculpture idea is that it is large enough to occasionally create flashes through light reflection as a remembrance.

## DISCUSSION

### DISKUSIJA

*"Memory is built. Memory is not something which is just there. It is also constructed... When we remember we are not in the past. We are always remembering now. The nature of the memory also changes with the present and with the future."*

Daniel Libeskind<sup>14</sup>

Three models of the act of healing through memorial are: healing nature, healing history and healing culture. Healing nature is recovering the illusion of landscape. Healing history is reuse of landscape and existing constructions. Healing culture is new relationship between people, urbanscape and landscape.

Weather memorials are more public/exposed or private/intimate character depends on its accessibility and scale. By analyzing these two planning criteria in correlation to the users we can conclude if the memorials are public or exposed or hidden and left to be explored by enthusiasts and specific curious visitors. Memorial Bridge in Rijeka is an example of public memorial used daily because it is placed in the urban center and designed as an addition to public infrastructure.

<sup>13</sup> <http://www.nfo.hr/#/spomenik-gordanu-ledereru>

<sup>14</sup> LEACH, 1999: 132

<sup>15</sup> VIRILIO, 2000: 1

<sup>16</sup> "The way in which the past is honored as "heritage" is more disastrous than its simple disappearance could ever be" Walter Benjamin quoted in abstract by Krzysytof Wodicyko [[http://www.staff.amu.edu.pl/~ewa/Memorials\\_in\\_the\\_Age\\_of\\_the\\_Anthropocene\\_abstracts.html](http://www.staff.amu.edu.pl/~ewa/Memorials_in_the_Age_of_the_Anthropocene_abstracts.html)]



Memorial to Gordan Lederer is almost hidden (not on an everyday route) and therefore it is a destination of travel or recreation routes. Vukovar Water Tower Memorial is public in character but also if museum opens inside tower or the memorial area this would be more visitor oriented function with educational purpose intended to explore internal curiosity or grief.

The resulting criteria for design evaluation of memorials from analyzing contemporary post-war case studies in Croatia are: first the relation between accessibility and scale and second the relation between walkspace and walkscape which forms the concept of manipulation. The 'concept of manipulation' derived as a result of previous paper Memorials as cultural landscapes, here we tried to prove it. Three elements of motion manipulation are compared on case studies: elements of focus, vistas and walking choreography. All three memorials have visible and clear focus element according to which authors design directions of walking. Free motion of visitors or wandering is also planned in specific area more connected to natural landscape and vistas.

Manipulation concept through choreography of motion (walkspace vs. walkscape) in the memorial space provides changing perception of the event and awareness of the experience in the memorial space.

## CONCLUSION

### ZAKLJUČAK

*„... the future is called the past”*

*Luis Aragon<sup>15</sup>*

As theoretical contribution of this research we point out the definition of memorials. Memorials are subtype of monuments because they relate to specific way of remembering and commemorating related to negative events or emotions while monuments can be dedicated to various purposes, persons or topics. By analyzing the walking choreography in memorials, we have showed that monuments are also parts of the memorials and placed in them as focus elements. Therefore, monuments are static notions while memorials imply dynamic use of space and therefore are a method of public space regeneration in urban and landscape environments.

In addition to manipulation, results show the significance of location, accessibility and scale for defining public-private relations of post-war memorials – regardless if they are situated in landscape or in urban areas.

On the contrary to negative interpretations of Walter Benjamin thoughts<sup>16</sup> on past as more

disastrous honored than disappeared, memorials need to be places of awareness, contemplating and understanding so that new public places become the heritage for future generations. This means that memorials are at the same time remembering and oblivion reinterpreted in the new public space and as such the disaster becomes new attraction which enables healing process.

Memorials are complex interdisciplinary subject where social, artistic, architectural, urban and political aspects are combined with psychological issues. The design characteristics analyzed in this and previous research are introduction to phenomenological future research for comparing the typologies, models and design concepts with the personal and subjective experiences and opinions of people touched by the events. Only by combining these types of data it is possible to analyze the consequences of a design and confirm if the healing models successfully serve their purpose.

[Authors]

BIBLIOGRAPHY  
LITERATURA

1. BOJANIĆ OBAD ŠĆITAROCI, B.; MARIC, T. (2015), *Memorials as Cultural Landscapes / Memorijali – način stvaranja kulturnog krajolika*, u: International Scientific Conference Cultural Heritage – Possibilities for Spatial and Economic Development, Proceedings / Međunarodni znanstveni skup prostorne i razvojne mogućnosti kulturnog naslijeđa, Zbornik radova [gl.ur. OBAD ŠĆITAROCI, M.], Arhitektonski fakultet: 244-249, Zagreb
2. LEACH, N. (1999), *Architecture and revolution*, Routledge, New York
3. MARIC, T.; BOJANIĆ OBAD ŠĆITAROCI, B. (2012), *Walkspace, Linearno povezivanje prostora na primjeru Splita*, "Prostor", 1 (43): 119-131, Zagreb
4. SEKULIĆ, D. (2013), *Nepodnosljiva težina nevidljivog*, "Zarez", 440, <http://www.zarez.hr/clanci/nepodnosljiva-tezina-nevidljivog> [8.11.2017.]
5. VIRILIO, P. (2000), *Landscape of Events*, Writing Architecture – A project of the Anyone Corporation, MIT Press Cambridge, Massachusetts, London, England
6. \*\*\* (2004), *Living with Risk: A Global Review of Disaster Reduction Initiatives*, Vol.1, UNISDR: 17, New York and Geneva, [http://www.unisdr.org/files/657\\_lwr1.pdf](http://www.unisdr.org/files/657_lwr1.pdf) [8.11.2017.]

SOURCES  
IZVORI

## INTERNET SOURCES

## INTERNETSKI IZVORI

1. [http://www.staff.amu.edu.pl/~ewa/Memorials\\_in\\_the\\_Age\\_of\\_the\\_Anthropocene\\_abstracts.html](http://www.staff.amu.edu.pl/~ewa/Memorials_in_the_Age_of_the_Anthropocene_abstracts.html) [8.11.2017.]
2. <http://www.unisdr.org/we/inform/publications/657> [8.11.2017.]
3. <http://www.unisdr.org/we/coordinate/sendai-framework> [8.11.2017.]
4. <http://www.3lhd.com/en/project/memorial-bridge> [8.11.2017.]
5. <https://www.radionica-arhitekture.hr/memorijal-vodotoranj-1> [8.11.2017.]
6. <http://www.3lhd.com/en/project/memorial-bridge> [8.11.2017.]
7. <http://www.nfo.hr/#/spomenik-gordanu-ledereru> [8.11.2017.]

## ILLUSTRATION AND TABLE SOURCES

## IZVORI ILUSTRACIJA I TABLICA

- FIG. 1 Ortophoto maps – Google Earth Pro base-map (Image © 2017 CNES / Airbus, Image © 2017 DigitalGlobe) + T. Zaninovic  
Photos of Memorial Bridge in Rijeka – © 3LHD 2001, Authors: Damir Fabijanic (photo from air), Aljoša Brajdic  
Water Tower Memorial in Vukovar – © Radionica Arhitekture  
Photos of Gordan Lederer Memorial in Hrvatska Kostajnica – © NFO + Petar Barišić, Authors: Bosnić+Dorotic

## TABLES

- I, II, III B. Bojanic Obad Šćitaroci and T. Zaninovic

## SUMMARY

## SAŽETAK

## STVARANJE MEMORIJALA – UMIJEĆE SJEĆANJA

## METODA OBNOVE MJESTA

Memorijali su prostori gdje se društveni, umjetnički, arhitektonski, urbanistički i politički čimbenici vežu za psihološke probleme. Karakteristike projekata, analiziranih u ovome i u prijašnjim istraživanjima autora ovoga članka, uvod su za buduće istraživanje usporedbe tipologija, modela i projektnih ideja s osobnim i subjektivnim iskustvima i mišljenjima ljudi povezanih s memorijalom, prostorom i događajima. Kombinacijom svih tih elemenata bit će moguće istražiti posljedice intervencija i provjeriti uspješnost modela ozdravljenja: ozdravljenje kulture (uspostavljanje novih međuljudskih odnosa), ozdravljenje povijesti (oporavak i ponovno korištenje pejzaža, struktura i građevina) i ozdravljenje prirode (oživljavanje iluzije pejzaža).

Za razliku od spomenika, memorijali su javni prostori koji služe ne samo podsjećanju već predstavljaju i način suočavanja s negativnim emocijama prošlih događaja i stvaraju viziju pozitivne budućnosti. U kontekstu zbivanja nakon katastrofa memorijali postaju novi javni prostori grada dodajući mu nove urbane i društvene vrijednosti. To znači da su projektirani kao antropogena mjesta u pejzažu ili gradu, uvijek asocijativnoga karaktera, služeći podsjećanju i medijaciji te istovremeno služeći zaboravu i potiskivanju negativnih emocija. Donose novi identitet i integritet mjestima te omogućavaju pomirenje ljudi i društva.

Ovaj rad istražuje memorijale u razdoblju nakon 1995. godine, poslije Domovinskoga rata u Hrvatskoj, i to metodom razrješenja s prošlošću i stvaranjem javnih prostora za budućnost. Pokazuje se važnost urbane regeneracije javnih prostora, što

postaje metoda kolektivnog i individualnog ozdravljenja.

Regeneracija kao proces obnove mjesta istražuje se pomoću dva pojma: pojam oživljavanja, koji vraća izgubljeno i nevidljivo, te pojam rehabilitacije ili oporavka, koji obnavlja postojeći karakter ili znak. Rad je dio istraživačkog projekta *Urbanizam naslijeđa* [HERU] i nastavlja istraživanje memorijala kao kulturnog pejzaža. HERU metoda koristi se za daljnju analizu tako da su čimbenici identiteta (namjera obnove, tip smještaja i koncept identifikacije) korišteni za utvrđivanje modela intervencije i kriterija za evaluaciju oblikovanja. Rezultati pokazuju značenje smještaja poslijeratnih memorijala, bez obzira jesu li smješteni u pejzažu ili gradskom prostoru. Odaabrani primjeri evaluirani su pomoću kriterija pristupnosti, mjerila i 'manipulacije' kretanja.

Članak je također dio istraživanja Urbana emanacija, gdje se ispituje dodavanje vremena i strukture prostoru, te prelaska iz statičkih u dinamičke modele, što se postiže stvaranjem svjesnosti o mjestu. Dinamička karakteristika gradskoga pejzaža proizlazi iz iskustva kretanja pa ovo istraživanje postavlja u međuodnos pojmove memorijala i prostora kretanja. Glavni elementi projektiranja jesu: 1. fokus, 2. vizure i 3. koreografija kretanja, a time nastaje 'koncept manipulacije' kretanjem.

Prethodna istraživanja memorijala u ranije objavljenom članku *Memorijali – način stvaranja kulturnog krajolika* [BOJANIĆ, MARIĆ, 2015.] donose tipološki pregled i modele projektiranja. Primjeri korišteni za tipološku identifikaciju u ovome radu postavljeni su u međuodnos s obnovom mjesta, i

to namjerom obnove, načinom smještaja u gradskom ili prirodnom pejzažu te simboličkom identifikacijom znaka ili repera.

Znak/pečat vezan je za memorijale koji su projektirani kao novi element u prostoru. Reperi se promatraju kao memorijal gdje postoji simbolički element i on je integriran u projekt ili kao memorijal koji stvara novo javno mjesto s vrijednošću koja postaje novi identitet u gradu.

Čimbenici identiteta istraženi su usporedbom različitih memorijala domaćih i svjetskih primjera iz 20. i 21. stoljeća. Na temelju usporedbe za detaljnije su istraživanje odabrani suvremeni memorijali Domovinskom ratu u Hrvatskoj, i to: Most hrvatskih branitelja u Rijeci, Memorijal Vodotoranj u Vukovaru i Memorijal Gordana Lederera u Hrvatskoj Kostajnici.

Istraživanjem primjera stvorena je podloga za definiranje memorijala kao podtipa spomenika vezanih za sjećanje s negativnom konotacijom. Analizom koreografije kretanja pokazujemo da su spomenici dio memorijala smješteni u njima kao element fokusa. Zaključak je da su spomenici statični, a memorijali podrazumijevaju dinamičko korištenje prostora i time postaju način obnove javnoga prostora bilo u gradu ili pejzažu.

Ne želi se koristiti interpretacija Waltera Benjamina koji pretpostavlja kako je bolje da sjećanje na nesreću nestane negoli da ju se slavi. Stajaliste je ovoga istraživanja da memorijali moraju postati mjesta svjesnosti, kontemplacije i razumijevanja, te na taj način postaju nova javna mjesta, naslijeđe za buduće narastaje.

[Autori]

## BIOGRAPHIES

## BIOGRAFIJE

Prof. **BOJANA BOJANIĆ OBAD ŠČITAROCI**, Ph.D., architect, is Head of the Department of Urban Planning, Spatial Planning and Landscape Architecture at the Faculty of Architecture, University of Zagreb. [www.scitaroci.hr]

**TAMARA ZANINOVIĆ**, MArch, is a Research assistant at the Faculty of Architecture in Zagreb and PhD student at Vienna Technical University.

Prof. **MASSIMO SARGOLINI** is a full professor of Town and Regional Planning and Director of Master in "Landscapes of innerland" at the University of Camerino and a member of Technical-scientific council for reconstruction after the earthquake in Italy 2016.

Izv.prof. dr.sc. **BOJANA BOJANIĆ OBAD ŠČITAROCI**, dipl.ing.arh., predstojnica je Katedre za urbanizam, prostorno planiranje i pejzažnu arhitekturu Arhitektonskog fakulteta Sveučilišta u Zagrebu. [www.scitaroci.hr]

**TAMARA ZANINOVIĆ**, mag.ing.arch., znanstvena je novakinja na Arhitektonskom fakultetu u Zagrebu i doktorandica na Tehničkom sveučilištu u Beču.

Prof. mr.sc. **MASSIMO SARGOLINI**, redoviti je profesor pri Urbanizmu i prostornom planiranju, direktor diplomskog studija „Pejsaži unutrašnjosti“ Sveučilišta u Camerinu i član je Tehničkog-znanstvenog vijeca za rekonstrukciju nakon potresa u Italiji 2016.

