ARHITEKTURA, RAZISKAVE
ARCHITECTURE, RESEARCH

Ljubljana 2016
ISSN 1580-5573

ARR

Arhitektura, raziskave / Architecture, Research

Univerza v Ljubljani, Fakulteta za arhitekturo

ISSN 1580-5573 (tisk)
ISSN 1581-6974 (www)

Uredništvo AR / AR Editing
Univerza v Ljubljani
Fakulteta za arhitekturo
doc. dr. Domen Zupančič
Zoisova 12
1000 Ljubljana
Slovenija

Oblikovanje in prelom / Design and layout
Stefani Berginc

Naročanje / Subscription
cena številke / price per issue 15 EUR / non EU 25EUR
za študente / student price 7 EUR
dekanat@fa.uni-lj.si

Revija je vpisana v razvid medijev pri MK pod številko 50
Revija je dosegljiva oz. indeksirana na naslednjih mestih:
Cobiss, ICONDA, MIT digital library, Ulrich, DOAJ, CEEOL, DLib, UL FA AR

Revijo sofinancira / Journal is cofinanced
ARRS

Tisk / Printing
Tiskarna Peterlin

VSEBINA
CONTENTS

UVODNIK

V tej številki so članki, ki obravnavajo področje večstanovanjske gradnje, kvalitete in uporabne vrednosti bivanja. Avtorici izr. prof. Metka Sitar in arhitektka Nataša Šprah sta v članku Vrednotenje uporabne vrednosti stanovanj za dvig bivalne kakovosti predstavili vrednotenje na izbranih treh primerov večstanovanjske zazidave v Mariboru. Pri vrednotenju sta uporabili t.i. švicarski način, ki je bil smiselno preslikan na slovenske razmere. Avtorici sta izpostavili potencialne možnosti vključevanja inovativnih meril kakovosti v strateške dokumente in zakonodajo na področju obnove teh sosesk.

Avtorica dr. Sabina Tanović se je v članku From temporary to permanent : public mourning and the architecture of memorial space posvetila prostoru žalovanja. Izbrala je primere žalovanja na javnih mestih in jih komparativno predstavila. Vsebinsko posega v tematiko odnosa posameznika do javnega prostora v relacijo odnosa množice do istega prostora, ali je možna participacija javnosti pri zasnovah in oblikovanju prostorov spomina in žalovanja. Prostor spomina je družbeni konsenz politike, stroke in javnosti; prostor žalovanja pa je prostor družbeno kritičnega dogodka. Ta slednji nastane neposredno po dogodku, manifestira se z zbiranjem ljudi na lokaciji. Avtorica zavzema stališče, da je žalovanje proces; družbeno žalovanje je prežeto z impulzom tragičnega dogodka in se manifestira z združevanjem žalujočih na javnem mestu (odprtem prostoru), ki se tako »množično« čustveno izpostavijo na javnem mestu.

Prispevek izr. prof. Tadeje Zupančič in dr. Eli Hatleskog z naslovom Kaj sproža preobrazbe kreativnih umetniških praks in kaj vodi njihovo delovanje v javnosti? je nastal po uspešnem in odmevnem projektu ADAPT-r. Avtorici v članku predstavljata delujoče metode prepoznavanja posamičnih in kolektivnih raziskovalnih tradicij in afinitet hibridne dualistične raziskovalne tradicije na UL FA.

Sočasnost strogega znanstvenega raziskovanja in prostorskega oblikovanja je na UL FA konstanta in ključno vpliva na kvalitativni proces izobraževanja in raziskovanja na področju arhitekture in urbanizma.

V pričujoči reviji so vključena še strokovna besedila: recenzija monografske publikacije Sustainable design of energy efficient family houses (Miha Praznik, Martina Zbašnik-Senegačnik); poročila z delavnica, kongresov in razstav.

Urednik
doc. dr. Domen Zupančič

EDITORIAL

In this issue prof. Metka Sitar and Nataša Šprah in the article Use value assessment for raising the quality of housing they open an interesting discussion in the field of housing quality in the Maribor, they used Swiss model to expose criteria of quality of dwellings and multi-family residential housing. The results are pointed towards practice: to improve strategic documents and implement legislative in the field of housing. The criteria are general and may be applied as general indicators in Slovenian planning strategy.

Dr. Sabina Tanović in the paper From temporary to permanent: public mourning and the architecture of memorial space discuss the theme of mourning in the public space and put a relation in-between memorial spaces and spontaneous mourning. Interesting theme of presence of memorials and the collision of the interests in the architecture of open public space.

In the article of prof. Tadeja Zupančič na dr. Eli Hatleskog, Transformative triggers and public behaviours of creative practices the role of ADAPT-r project is presented. The authors give a summary of some criteria developed within the project. They used interview as the research method, interviews provided sources to expose 'Transformative Triggers' and 'Public Behaviours' in a research. Authors pointed out: 'It has helped us to identify the resonance of the hybrid tradition of the University of Ljubljana, Faculty of Architecture, within this and other creative practice research contexts, the flows of research influences and the triggers of its transformations. '

In this issue along scholar papers are: book review of Sustainable design of energy efficient family houses (Miha Praznik, Martina Zbašnik-Senegačnik); reports from workshops, exhibitions and congresses.

Editor
doc. dr. Domen Zupančič

ČLANKI
ARTICLES

RECENZIJA
REVIEW

WORKSHOPS
WORKSHOPS

KONGRESI
CONGRESSES

VREDNOTENJE UPORABNE VREDNOSTI STANOVANJ ZA DVIG BIVALNE KAKOVOSTI

USE VALUE ASSESSMENT FOR RAISING THE QUALITY OF HOUSING

UKD 728:332.6
COBISS 1.01
Prejeto 30.05.2016

izr. prof./Assoc. Prof. dr. Metka Sitar
University of Maribor, Slovenia
Faculty of Civil Engineering
Transportation Engineering and Architecture
metka.sitar@um.si

asist./Ass. Nataša Šprah
University of Maribor, Slovenia
Faculty of Civil Engineering
Transportation Engineering and Architecture
natasa.sprah@um.si

Ključne besede

stanovanjska kakovost; uporabna vrednost stanovanja; večstanovanjske stavbe; stanovanjska prenova

Izvleček

Prispevek obravnava različne vidike trajnostnega načrtovanja stanovanj, ki izpostavljajo vrednotenje kakovosti stanovanj na osnovi različnih metod in orodij za vrednotenje načrtovanja stanovanjskih novogradenj in prenove obstoječih stanovanjskih zazidav. Uvodoma opredelimo ožji okvir področja večstanovanjskih stavb, na katerem v zadnjih desetletjih v evropskem prostoru prepoznavamo razvoj različnih orodij, ki kakovost stanovanjske gradnje presojajo vključno iz vidika družbene trajnostnosti. Ugotavljamo, da v Sloveniji to področje sicer pokrivajo različni predpisi in priporočila, vendar ne vključujejo meril kakovosti arhitekturnih rešitev stanovanj, pomembnih z vidika uporabnika. V nadaljevanju predstavljamo švicarski sistem vrednotenja uporabne vrednosti stanovanj iz vidika uporabnika, ki smo ga ocenili kot primernega za preizkus tudi za slovenske razmere. Izvedli smo ga z vrednotenjem arhitekturnih rešitev stanovanj v treh značilnih večstanovanjskih zazidavah v Mariboru. Na ta način smo pridobili različne vrednosti stanovanj, ki se med seboj razlikujejo glede na arhitekturne, konstrukcijske in tehnološke zasnove izbranih stanovanjskih zazidav. Sklepamo, da rezultati vrednotenja uporabne vrednosti stanovanj nakazujejo nove priložnosti vključevanja inovativnih meril kakovosti v zakonodajne in strateške dokumente tako na področju prenove obstoječega stanovanjskega fonda, kakor tudi na področju načrtovanja novih stanovanjskih zazidav.

Key words

housing quality; use value of dwellings; multi-family residential buildings; housing renovation

Abstract

The paper discusses sustainable housing development, focusing on the assessment of housing quality conducted on the basis of various methods and tools for evaluating the design concepts of new housing developments and the renovation of existing housing estates. The introduction determines the issue of multi-family residential housing as the framework of the research. In the last decades, in view of social sustainability, various tools for evaluating housing quality were developed. We observe that, in Slovenia, certain regulations and recommendations concerning this topic exist, but they do not include the criteria of the quality of architectural design from the residents' point of view. Next, we present a Swiss system for determining the use value of dwellings for the resident, which we consider appropriate for evaluating the housing quality in Slovenia We tested the tool by assessing individual dwellings in residential buildings located in three characteristic housing estates in Maribor. In this way, we obtained the results regarding the use value of dwellings that varied heavily in view of the architectural, structural and technological characteristics. As a conclusion, we discussed the opportunities of incorporating the use value assessment into the Slovenian regulations and strategic documents concerning the renovation of the existing housing stock as well as new housing developments.

1. Uvod

Trajnostno načrtovanje stanovanj ponazarja pristop, ki se ni uveljavil samo na področju načrtovanja in gradnje novih stanovanj, temveč tudi na področju prenove obstoječega stanovanjskega fonda, saj vključuje skrb za zagotavljanje kakovostnega bivanja na daljši rok. Kot tak zahteva odgovorno ravnanje vseh udeležencev v procesih odločanja o kakovosti, od priprave projektov, preko načrtovanja in graditve, do vzdrževanja. Prizadevanja za trajnostno urbanistično in arhitekturno načrtovanje na tem področju stremijo k izboljšanju gospodarskih, družbenih in okoljskih razmer za dvig bivalne kakovosti v sozvočju z individualnimi potrebami sedanjih in bodočih stanovalcev. V evropskem prostoru zavzema posebno mesto obravnava stanovanjske kakovosti na področju prenove in preurejanja obstoječih večstanovanjskih zazidav v primestnem prostoru. Večino stavb predstavljajo večstanovanjske stavbe s praviloma majhnimi stanovanji, kjer so arhitekturne rešitve standardizirane, prilagojene konstrukcijskim tehnološkim rešitvam z nizkimi stroški gradnje, ki so zato pogosto slabše kakovosti. Največji izziv danes predstavljajo nove zahteve zaradi sprememb v življenjskih slogih in demografske spremembe gospodinjstev [Sendi, 2013], Gotovo velja, da je kakovostno stanovanje najpomembnejši člen v presoji bivalnega okolja.

Različne metode, namenjene vrednotenju kvalitete stanovanj v večstanovanjskih stavbah, vzpostavljajo razmere za uveljavljanje inovativnih oblik načrtovanja in prenove, ki v postopke odločanja vključujejo najrazličnejše deležnike. V skladu z zgodovinskim razvojem poudarjajo funkcionalne, gradbenotehnične in estetske izboljšave stanovanjskih standardov, ki v mnogih obstoječih zazidavah več ne ustrezajo potrebam današnjih stanovalcev. V zadnjih desetletjih je pojem izboljšanja bivalne kakovosti v največji meri povezan z ukrepi za učinkovito rabo energije, z zmanjšanjem stroškov obratovanja ter povečanjem vgradnje okolju prijaznih materialov, ki poudarjajo upoštevanje sedanjih, pa tudi prihodnjih potreb stanovalcev. Pristopi vrednotenja kakovosti vključujejo kazalnike, ki presojajo bivalno kakovost na ravni arhitekturne zasnove stanovanj, večstanovanjskih stavb in celotnih stanovanjskih zazidav. Predstavljajo preplet številnih faktorjev, ki izpostavljajo zlasti funkcionalnost arhitekturnih zasnov, prilagojenih sodobnim načinom bivanja v procesih načrtovanja, gradnje in uporabe [Sitar, Skalicky, 2012]. Številne študije primerov, izdelane na osnovi različnih metod, poudarjajo načela družbene trajnostosti, ki narekujejo celostni pristop k vrednotenju kakovosti. Le-ta zahteva razvoj novih družbenih, finančnih, tehničnih in postopkovnih modelov, namenjenih najzgodnejšim fazam odločanja na ravni stanovanjskih organizacij, politike, lastnikov in načrtovalcev [COST TU0701, 2008].

V pričujočem prispevku je uporabna vrednost stanovanj definirana kot ocena kvalitete stanovanja z vidika uporabnika in vključuje kakovost razporeditve, velikosti, opremljenosti in orientacije prostorov glede na možnost fleksibilne in variabilne uporabe le-teh.

2. Kakovost stanovanj v slovenskih razmerah

Kakovost stanovanj bistveno vpliva na kakovost bivanja v smislu zagotavljanja primerne varnosti, zaščite, udobja, kakor tudi občutenja pripadnosti prostoru bivanja [Sendi, 2001]. Pojem kakovosti stanovanj v Sloveniji je sicer posredno vključen v ustavno določilo, po katerem država zagotavlja državljanom možnosti za zagotovitev primernega stanovanja [Ur. l. RS, 1991]. Zadostna in kakovostna oskrba stanovanj tradicionalno predstavlja enega bistvenih elementov socialne politike na področju stanovanjske politike v Sloveniji, ki se je udejanjala v praksi do samostojne države in uvedbe tržnega gospodarstva. Največjo rast je stanovanjski fond doživel med leti 1970 in 1980 z intenzivno stanovanjsko gradnjo t.i. družbenih stanovanj, zgrajenih v prevladujoči tipologiji večstanovanjskih stavb, ki so dosegli vrhunec v obliki stanovanjskih sosesk. Po letu 1985 je stanovanjska gradnja zaradi sprememb sistema financiranja in oskrbe pričela upadati, po letu 1991 pa je zaradi novih razmer na stanovanjskem trgu popolnoma zastala.

1. Introduction

Sustainable housing development is a concept that has become established not only in the field of designing and building new housing, but also in the field of renovation of the existing housing stock, since it expresses the concern for ensuring the quality of living in the long term. It thus requires corresponding responsible actions of the stakeholders in all the decision-making processes related to housing quality, from the design and the construction phase, to the maintenance of buildings. Increasing sustainability in this field includes the improvement of the economic, social and environmental conditions in order to raise the quality of living implying in accordance with the individual needs of present and future residents. In Europe, the consideration of housing quality plays an important role in the redevelopment of existing suburban housing estates. The majority of housing structure was constructed in different typologies of multi-family residential buildings, characterised by generally small dwellings of standardised architectural concepts. Therefore, adapted to low-cost constructional and technological solutions, they are often of poorer living quality. Currently, the changes in lifestyles and the changing demographic structure of households present a major challenge [Sendi, 2013]. Namely, a suitable dwelling is the most important element in assessing residential environment.

Tools, intended for the assessment of the multi-family residential buildings housing quality, create the conditions for establishing innovative forms of design that include various stakeholders in decision-making processes. In line with tradition, they emphasise the functional, constructional-technical and aesthetic improvement of the housing standards, which in the existing multi-family residential buildings no longer meet the needs of today's residents. In the last decades, the rise in the aspects of quality housing have been predominantly related to measures for a more efficient use of energy, a reduction in operating costs and an increase in installing environmentally friendly materials.

Tako velja, da je danes 70 % obstoječega stanovanjskega fonda v Sloveniji potrebno obnove, kar vpliva na slabšo kakovost stanovanjskih razmer v starejših večstanovanjskih stavbah in zazidavah. Problematika trajnostne prenove večstanovanjskih stavb je tesno povezana s številnimi ovirami v procesih odločanja, okrepljenih z učinki privatizacije stanovanj v zgodnjih 90-ih letih [Sitar¸Skalicky, 2012].

Ocena kakovosti stanovanj je praviloma omejena na statistične vire o velikosti, lokaciji, številu in opremljenosti stanovanjskih stavb, ki omogočajo določeno primerjavo s povprečnimi vrednostmi na ravni Evropske unije. Viri navajajo, da povprečna velikost stanovanj v mestih v Sloveniji znaša 72,1 m^2, kar je 16 m^2 pod evropskim povprečjem [Eurostat, 2015]. Nasprotno je število članov gospodinjstva nad evropskim povprečjem, kar pomeni, da je stanovanjska površina na prebivalca prav tako nižja od evropskega povprečja. V zvezi s presojo kakovosti stanovanj smo zasledili podatek, da v slabih stanovanjskih razmerah živi 32 % gospodinjstev, to je skoraj tretjina prebivalstva [Resolucija o nacionalnem stanovanjskem programu, 2015]. Po drugi strani pa glede na starost obstoječih stanovanj fonda preseneča podatek, da je stopnja zadovoljstva s stanovanji v Sloveniji višja od evropskega povprečja, saj znaša kar 60,4 % [Eurostat, 2015]. Pogled od zunaj takšno stanje pripisuje visokemu deležu lastniških stanovanj, saj imajo lastniki stanovanj v primerjavi z najemniki bolj pozitiven odnos do svojega bivališča [Dekker et al., 2011].

Slovenska zakonodaja ne vključuje posebnih zahtev in standardov v zvezi z vrednotenjem kakovosti stanovanj. Regulativa s področij graditve ter cenitve in oddajanja stanovanj v neprofitni najem pa izpostavlja določena merila, ki so sicer neposredno povezana s kakovostjo stanovanj. Tako Pravilnik o minimalnih tehničnih zahtevah za graditev stanovanjskih stavb in stanovanj [Ur. l. RS, 2011] za novogradnje in rekonstrukcije večstanovanjskih objektov predpisuje minimalne zahteve, ki se nanašajo na načrtovanje posameznih prostorov in njihovo opremljenost, odmike opreme, osvetlitev ipd.

Obrazec cenitve stanovanj, ki je priloga Pravilnika o merilih za ugotavljanje vrednosti stanovanj in stanovanjskih stavb [Ur. l. RS, 2004], pa določa vrednost stanovanj glede na površino stanovanja, ponudbo skupnih prostorov in konstrukcijsko-tehnične značilnosti. Tudi Pravilnik o dodeljevanju neprofitnih stanovanj v najem [Ur. L.RS, 2004] določa minimalne in maksimalne površine stanovanja, vezane na število članov gospodinjstva ter tako kot edini med naštetimi vsebuje dejansko določene površinske normative glede velikosti stanovanja.

Dejstvo je, da za področje prenove v Sloveniji nimamo določil za vrednotenje kakovosti obstoječih stanovanj, čeprav so cilji kakovostne prenove vključeni med prednostne cilje strateških in razvojnih dokumentov. Tako eden zadnjih dokumentov, Resolucija o nacionalnem stanovanjskem programu 2015 – 2025 poudarja celovit pristop za dvig kakovosti stanovanjske gradnje in ponovno postavlja v ospredje aktivno stanovanjsko politiko države [Ur. l. RS, 2015]. Ugotavlja, da je stavbni fond v Sloveniji zastarel in ne ustreza več energetskim in funkcionalnim standardom sodobne družbe. Med osnovne cilje prednostnih projektov v obdobju naslednjih desetih let uvršča prenovo stanovanj v skladu s sodobnimi bivanjskimi in okoljskimi trendi. Kakovostna stanovanja opredeljuje z vidikov kakovostne graditve, primerne velikosti glede na potrebe uporabnikov ter čim manjših stroškov vzdrževanja in bivanja. Načela zagotavljanja kakovosti in funkcionalnosti veljajo tako za novogradnje kot za prenove, vendar za njihovo vrednotenje ni podanih nobenih podrobnejših določil.

3. Metode in kazalniki vrednotenja kakovosti stanovanj

V znanstveni literaturi najdemo različne definicije kakovosti stanovanj. Tako Sendi [2001] med najpomembnejše kazalnike uvršča, med drugimi, dostop do osnovne javne infrastrukture, upoštevanje standardov in zakonodaje s stanovanjskega področja, kakovost konstrukcije in gradbenih materialov, pa tudi arhitekturno zasnovo in fleksibilnost rabe.

Taking into account the present and future needs they emphasize user-friendly dwellings. The assessment approaches include indicators that evaluate quality including the architectural design of dwellings, buildings, and the entire housing estate. They summarise an interweaving of numerous factors that primarily point out the functionality of the architectural design concepts adapted to contemporary living at all levels of design, construction and use (Sitar, Skalicky, 2012). Numerous case studies conducted in various countries according to different methods stress the concept of social sustainability, which requires a comprehensive approach to quality assessment. They support the development of new social, financial, technical, and procedural models adjusted to the earliest stages of decision-making at the level of housing associations, authorities, owners and designers [COST TU0701, 2008].

In this paper, we define residential use value as an assessment of the quality of use of the dwelling for the resident, encompassing the evaluation of the layout, size, possible furnishing and orientation of separate spaces of the dwelling in view of their flexible and variable use.

2. Housing quality in Slovenian context

The quality of housing has an essential impact on the quality of living in terms of provision of suitable shelter, security protection, comfort, and the fulfilling of the sense of belonging to ones place of habitation [Sendi, 2001]. The concept of housing quality is indirectly included in the Slovenian Constitution according to which the state creates the opportunities for citizens to obtain proper housing [1991]. The sufficient provision of suitable dwellings has been traditionally one of the essential elements of social policies, which was also the case in the Slovenian housing policy before Slovenia gained its independence and introduced a market economy. The greatest increase in the housing stock was achieved during intensive housing construction activities periods between the years 1970 and 1980 when the construction of the so-called social dwellings in the predominant typology of multi-family residential buildings and housing estates reached its peak. After 1985, this construction started to decrease due to the changes in the system of funding and the provision of housing, while the new circumstances in the housing market after 1991 caused its stagnation. Thus, today 70 % of the existing housing stock is in need of renovation, which entails a poorer quality of life in older housing estates. The problem of renovating multi-family residential buildings is closely related to numerous obstacles in decision processes of building renovation, which has been intensified by the effects of the privatisation of dwellings in the early 1990s [Sitar, Skalicky, 2012].

Housing quality assessments are generally limited to the statistical data regarding the size, location, number, and equipment of residential buildings that enable a certain comparison of quality with the EU average. According to it, the average size of dwellings in Slovenian cities is 72.1 m2, which is 16 m2 under the European average [Eurostat, 2015]. In contrast, the number of household members is above the European average, which means that the housing surface per inhabitant is lower than the European average. In addition to this, 32 % of households live in bad conditions [Resolution of the National Housing Programme 2015-2025, 2015]. On the other hand, in view of the age of the existing housing stock, according to Eurostat [2015], the degree of housing satisfaction in Slovenia amounts to 60.4 % and is surprisingly higher than the European average. An external view ascribes the result to a high share of owner-occupied dwellings since compared to the tenants, the owners have a more positive attitude toward their dwelling [Dekker et al., 2011].

The Slovenian legislation does not contain specific standards concerning the quality assessment of dwellings. However, the regulations on building construction and valuation, as well as the regulations on non-profit rental dwellings provide certain criteria that are directly linked to housing quality.

Acre in Wyckmans [2014] govorita o prostorski kakovosti, ki jo opredeljuje prepletenost kazalnikov, kot so možnosti različnih pogledov, notranja prostornost in razporeditev prostorov, prehod med javnim in zasebnim ter zaznane, zgrajene in dejanske gostote poselitve. Po Nielsenu in dr. [2016] orodja v pomoč odločevalcem, ki vrednotijo kakovost procesov prenove na osnovi prepoznavanja trajnostnih ciljev v prednačrtovalski in načrtovalski fazi, vključujejo vidike ekološke, ekonomske in družbene trajnostnosti tako stavb kot celotnih stanovanjskih zazidav ter med pomembne kazalnike uvrščajo arhitekturno kakovost in funkcionalnost. V Sloveniji lahko kot priporočilo za trajnostno arhitekturno načrtovanje razumemo slovenski prevod nemške Smernice trajnostne gradnje [IZS, 2013], ki se sicer v izvirniku uporablja pri javnih investicijah. Le-te v okvir kakovosti uvrščajo vidike ekološke, ekonomske ter družbeno-kulturološke in funkcionalne kakovosti, ki zagotavljajo funkcionalnost, kakovost oblikovanja ter varstvo zdravja, varnosti in ugodja. Del kazalnikov je bil preizkušen v analizi desetih stanovanjskih zazidav gradnje za trg v Sloveniji, zgrajenih v obdobju med leti 2002 in 2011, katere rezultat je z vidika uporabnikov porazen, saj so bile njihove potrebe v fazi načrtovanja docela izključene. Čok kot avtor raziskave ugotavlja, da v stanovanjski gradnji, z izjemo zagotavljanja energetske učinkovitosti, ki je določena s predpisi, prevladujejo izrazito ekonomski interesi, pogrešamo pa vidike kulturološke in družbene kakovosti. Zato je nujno, da se v slovensko zakonodajo vpeljejo primerna orodja za zagotavljanje vseh oblik trajnostnosti [Čok, 2014].

3.1. Uporabna vrednost stanovanja kot merilo kakovosti

Število raziskav, ki vključujejo presojo kakovosti stanovanj z vidika njihove uporabne vrednosti, je zaradi metodoloških omejitev sorazmerno majhno, saj velja, da se je pri tovrstnem vrednotenju težko izogniti subjektivni oceni. Vsekakor pa vidik uporabne vrednosti na področju vrednotenja kakovosti stanovanj zavzema posebno mesto, saj je osnovan na specifični oceni vpliva kakovosti arhitekturne zasnove na zadovoljstvo uporabnikov [Nograsek, 2001]. Takšen pristop je zasnovan v švicarskem Sistemu vrednotenja stanovanj (v nadaljevanju SVS), ki vključuje presojo kakovosti stanovanj na osnovi uporabne vrednosti izključno z vidika uporabnika [Bundesamt für Wohnungswesen, 2014]. Izbrani sistem se že od leta 1975 uporablja za določitev subvencij za gradnjo neprofitnih stanovanj, ki podpira izvajanje stanovanjske politike, v letih 1986, 1990 in 2015 pa so ga prilagodili sodobnemu razvoju stanovanjske gradnje.

Slika 1: Stanovanjski blok v stanovanjski zazidavi Metalna, 1953 (značilni tloris etaže). Povzeto po načrtih iz Pokrajinskega arhiva Maribor.
Figure 1: Residential building in the Metalna housing estate, 1953 (typical floor layout). Redrawn from plans of Regional Archives Maribor.

Thus, the Rules on Minimum Technical Conditions for the Construction of Residential Buildings and Dwellings [2011] prescribe the minimum requirements for new housing developments and the reconstructions of multi-family residential buildings that apply to designing individual rooms and their minimum furnishings, lighting, etc. The Housing Assessment Form in the Annex to the Rules on the Criteria for Assessing the Value of Dwellings and Residential Buildings [2004] enables the determination and comparison of the value of dwellings according to size, the variety of common areas and their constructional and technical characteristics. The Rules on the Rental of Non-profit Dwellings [2004] determine the minimum and the maximum floor area of a dwelling according to the number of household members and are thus the only regulation to provide requirements regarding the size of the dwellings according to the number of household members.

Although Slovenia has no relevant regulations regarding quality assessment, the quality renovation of the existing housing stock was adopted as one of the priority objectives of strategic and development documents. One of the latest documents, the Resolution of the National Housing Programme 2015-2025 [2015] reflects a positive attitude toward a comprehensive approach to raising housing quality and highlights an active role of the state in housing policy. The document states that the housing stock in Slovenia is aging and, therefore, it does no longer meet the contemporary standards regarding energy consumption and functionality.

The renovation of dwellings in accordance with contemporary housing and environmental trends is determined as one of the basic objectives to accomplish in the next ten years. The quality of dwellings is characterised by the quality of its construction, appropriate size suitable for the users' needs, and the lowest possible maintenance and living costs. However, the principles of ensuring quality and functionality, apply to both new developments and housing renovation, but do not provide any detailed criteria.

3. Methods and indicators of housing quality assessment

In current literature we find various definitions concerning housing quality. According to Sendi [2001], the most important weighting factors are, among others, access to basic communal infrastructure, compliance with design and building standards, quality of construction and building material, architectural design of the dwelling and the flexibility of the use of dwellings. Acre and Wyckmans [2014] argue the definition of spatial quality as the interrelation between four determinants as defining views, internal spatiality and spatial arrangements, transition between private and public spaces, and perceived, built and human densities.

According to Nielsen et al. [2016],the decision support tools to evaluate the housing quality in building renovation processes identify sustainability goals in the pre-design and design phase. These tools advocate, among others, the aspects of ecological, economic, and social sustainability of buildings and entire urban areas, incorporating in the indicators for accessing architectural quality and functionality.

In Slovenian literature, we can find the translation of German Guideline for Sustainable Building [IZS, 2013], originally applied for the assessment of public investments. A quality sustainable construction is related with ecological, economic, socio-cultural and functional quality, the latter including standards for functionality and quality of design, protection of health, safety and comfort.

According to this tool, Čok [2014] analysed ten housing estates constructed for the Slovenian housing market in the period between 2002 and 2011. He claimed that the needs of the future dwellers were generally excluded from the planning phases. In his conclusion, Čok highlights the necessity to introduce appropriate tools for ensuring all kinds of sustainability into Slovenian legislation since with the exception of ensuring energy efficiency and compliance with building regulations, the Slovenian housing sector is dominated by economic interests and the lack of social aspects of sustainability.

Za razliko od drugih podobnih metod, kot so na primer britanske smernice Evaluating housing proposals step by step [CABE, 2008], večina kazalcev SVS temelji na dejanskih izmerah in numeričnih ocenah, ki puščajo zelo malo prostora za subjektivne interpretacije. To potrjuje tudi izbor SVS kot objektivno merilo za preizkus vrednotenja uporabne vrednosti stanovanj v dvanajstih stanovanjskih zazidavah v avstrijskem Gradcu, ki je dal vzpodbudne rezultate za oblikovanje novih orodij za dvig kakovosti arhitekturnih rešitev [Nograsek, 2001].

Glede na to, da so tipologije obstoječe večstanovanjske gradnje v preteklih desetletjih do določene mere primerljive s Slovenijo, smo se odločili, da metodo SVS vrednotenja uporabne vrednosti stanovanj preizkusimo za naše razmere raziskavi stanovanj in stanovanjskih zazidav v Mariboru.

Izbrano orodje SVS predstavlja sistem vrednotenja kakovosti stanovanj z vidika uporabne vrednosti za stanovalca na osnovi 25 kazalnikov, razdeljenih v tri skupine. Ocenjevani objekt lahko doseže za vsakega od kazalnikov maksimalno štiri točke, ki se seštevajo po posameznih skupinah in kot celota za objekt. Prva skupina na osnovi šestih kriterijev ocenjuje na ravni umestitve zazidave v prostor, druga po osmih kriterijih vrednoti kakovost na ravni celotne stanovanjske zazidave in tretja z enajstimi kriteriji ocenjuje kakovost na ravni posameznih stanovanj. Za preizkus SVS v slovenskih razmerah smo izbrali raven vrednotenja posameznih stanovanj v treh značilnih stanovanjskih zazidavah v drugem največjem slovenskem mestu: Metalna, Jugomont in Poljane.

4. Vrednotenje uporabne vrednosti stanovanj v stanovanjskih zazidavah Metalna, Jugomont in Poljane

V zadnjih desetletjih trajnostni pristopi k raziskavam obstoječega stanovanjskega fonda v Sloveniji izpostavljajo večstanovanjske stavbe, zgrajene po drugi svetovni vojni. Po svojih bivalnih standardih več ne ustrezajo potrebam sedanjih stanovalcev, kar narekuje nujno vpeljavo določenih kriterijev arhitekturnega načrtovanja za odločanje o prenovi. Da bi pridobili objektivno oceno kakovosti obstoječih stanovanj, smo preizkusili orodje SVS vrednotenja kakovosti z orodjem SVS na primerih stanovanj in večstanovanjskih stavb v treh stanovanjskih zazidavah v Mariboru na osnovi analitične študije iz leta 2011 [Šprah, 2011], ki smo jo za potrebe prispevka aktualizirali in nadgradili z upoštevanjem določil prenovljenega SVS iz leta 2015.

Izbrana stanovanja smo ocenili kot značilna za presojo kakovosti večstanovanjske gradnje v različnih obdobjih po drugi svetovni vojni, iz katerega so se v Mariboru ohranile tipološko različne organizirane stanovanjske zazidave. Stanovanjska zazidava Metalna je bila grajena v obdobju med leti 1949 in 1953, Jugomont med leti 1965 in 1972 in Poljane v leta 2007. Vse tri zazidave so bile zgrajene v okviru t. i. družbene stanovanjske gradnje, financirane z javnimi sredstvi za praviloma najemniški sektor v skladu z normativi za dodelitev stanovanj. V stanovanjski zazidavi Metalna smo analizirali trietažni linijski stanovanjski blok z 18 stanovanji, ki je bil zgrajen leta 1953. Dvosobna stanovanja so skoraj identična v tlorisni zasnovi z veliko bivalno kuhinjo in ostalimi prostori, nanizanimi vzdolž hodnika. Razlikujejo se po balkonih, ki jih pritlična stanovanja nimajo, in dodatnem oknu v kuhinji v vogalnih stanovanjih. Značilna stanovanjska etaža, po daljših stranicah orientirana v smeri vzhod-zahod, veže dve stanovanji na eno stopnišče in tako omogoča dvostransko, v vogalnih stanovanjih pa celo tristransko orientacijo in s tem naravno osvetlitev v vseh prostorih (Slika 1).

Za konstrukcijsko zasnovo je značilna izvedba opečnih nosilnih in nenosilnih sten, medetažne stropne plošče in stopniščne rame pa so v betonski izvedbi. Stavba kaže slabosti, značilne za povojne tipizirane stanovanjske zazidave, kot so toga prostorska in oblikovna zasnova ter uniformiranost tlorisnih rešitev kot posledice pomanjkanja gradbenih materialov in sanitarne opreme, slabe kakovosti gradbeno-obrtniških del in pomanjkljive komunalne opreme [Pirkovič-Kocbek, 1982].

3.1. Use value of dwellings as a criterion of quality

In order to avoid a subjective judgement, and due to methodological limitations, the number of studies that include housing quality assessment from the viewpoint of the use value of dwellings is relatively small. Nevertheless, this aspect plays a specific role in the housing quality evaluation, as it emphasizes the impact of the quality of architectural design on the satisfaction of users [Nograsek, 2001]. This kind of approach at assessing solely the use value for the residents has been adopted in the Swiss system of Use Value Assessment of Dwellings (hereinafter referred to as the UVAD) [Bundesamt für Wohnungswesen, 2015]. As a quality assessment tool, it has been successfully implemented in the Swiss non-profit housing policy in 1975. In 1986, 1990 and 2015, it was adapted to the current stage of housing development. As opposed to other similar methods, such as the British guideline [CABE, 2008], most of the UVAD indicators are based on real measurements and numerical evaluations and thus leave very little space for subjective interpretations.

This was also confirmed by the selection of the UVAD method as the most objective criterion for testing the use value assessment of dwellings in twelve housing estates in Graz, Austria [Nograsek, 2001]. Since the existing typologies of multi-family residential buildings in Graz are to a certain extent comparable with the conditions in Slovenia, we decided to use the UVAD methodology for testing the use value assessment of the dwellings in the Slovenian city of Maribor.

The UVAD method comprises 25 indicators, divided into three categories. The assessed building obtains a maximum of four points for each indicator; the poins are added up by category and as a total. The first category comprises six indicators to access the buildings' location, the second one eight indicators to access the housing estate, and the third one eleven indicators to access the individual dwellings. The last one appeared most interesting for our analyses to access the use value from the view of residents in three characteristic Slovenian housing estates, located in Maribor, the second biggest city of Slovenia.

4. The use value assessment of dwellings in the Metalna, Jugomont and Poljane housing estates

In current decades, the sustainable approaches for assessing the quality of the existing housing stock in Slovenia are focused on multi-family residential buildings constructed after the WWII. Generally, they no longer meet the needs of current residents and urgently call for quality evaluation criteria of architectural design in building renovation. In order to obtain objective information, we tested the UVAD tool in dwellings and residential buildings in three housing estates in Maribor based on the study conducted by Šprah in 2011, and updated according to the revised UVAD from 2015. Concerning the architectural concepts, the selected housing estates have marked three different periods of housing development after the WWII. Metalna housing estate was built in the period from 1949 to 1953, Jugomont from 1965 to 1972, and Poljane in 2007.

All three housing estates were built within the frame of the publically funded social housing system, planned for rent tenants selected in accordance with specific requirements for socially weak citizens. In the Metalna housing estate we analysed a three-storey residential block with 18 dwellings, built in 1953. The layout concepts of individual floors with two-room dwellings are almost identical, including a large kitchen and rooms lined-up along the corridor. They differ in terms of the availability of balconies (the ground floor does not have balconies), and additional windows in kitchens of corner dwellings. The typical floor layouts are positioned in the east-west direction of the longer side of the building, with a staircase connecting two dwellings per floor, thus enabling the windows to face two, in corner dwellings even three different directions, and the daylight in all rooms (Figure 1). In regard to the construction system, both, the load-bearing and non-load-bearing walls are brick masonry, while the ceiling slabs and the staircases are built in concrete. All in all, the analysed building represents all the characteristics of post-war typified housing structure with an inflexible spatial and design concept, uniform layout solutions dictated by the lack of building materials and bathroom equipment, poor construction and finishing works, and a deficient public utility infrastructure [Pirkovič-Kocbek, 1982].

Slika 2: Stanovanjski blok v stanovanjski soseski Jugomont, 1967 (značilni tloris etaže). Povzeto po načrtih iz Pokrajinskega arhiva Maribor.
Figure 2: Residential building in the Jugomont housing estate, 1967 (typical floor layout). Redrawn from plans of Regional Archives Maribor.

Slika 3: Linijski blok s stolpičem v stanovanjski zazidavi Poljane, 2007 (značilni tloris etaže).
Figure 3: Residential buildings in the Poljane housing estate, 2007 (of a typical floor layout).

Drugi primer je stanovanjski blok v stanovanjski soseski Jugomont, zgrajen leta 1967, ki kaže značilno arhitekturno zasnovo v betonski montažni konstrukciji. Le-ta je med letoma 1960 in 1985 prevladovala v izvedbah vseh večjih stanovanjskih projektov v okviru nekdanje Jugoslavije [Jovanović et al., 2012]. Montažni sistemi so zagotavljali hitrejšo, cenejšo in kakovostnejšo gradnjo, ki so jo podpirali tako investitorji kot izvajalci gradbenih del [Mercina, 2006]. V šestih etažah stanovanjskega bloka se nahaja 70 stanovanj v razponu od garsonjer do 2,5-sobnih stanovanj, vezanih na dve notranji stopnišči. Značilni tloris stanovanjske etaže, ki je po daljših stranicah orientiran v smeri vzhod-zahod, niza stanovanja, ki so manjša orientirana enostransko, večja pa dvostransko. Majhne kopalnice so brez oken (Slika 2). Konstrukcijski sistem uporablja betonske montažne elemente sistema Jugomont, ki strogo ločuje nosilne in nenosilne zidove, prečne nosilne zidove na osni razdalji 372 cm pa povezuje sredinski vzdolžni zid [Mercina, 2006]. Montažni fasadni elementi so izvedeni v betonu, med okni pa kot sendvič plošče s pločevinasto oblogo. Stanovanja v tretji stanovanjski zazidavi Poljane se nahajajo v linijskem bloku in stolpiču, povezanima s podzemno garažo. Neprofitna stanovanja, zgrajena leta 2007, vključujejo 65 stanovanj različnih velikosti od garsonjer do 3,5-sobnih stanovanj. Značilna stanovanjska zasnova obsega »dnevni del«, ki vključuje kuhinjo, jedilnico, dnevni prostor in dva balkona, ter »nočni del« z eno ali dvema spalnicama, sanitarnimi prostori in hodnikom. Stanovanjske enote so umeščene okrog osrednjega stopnišča. Daljši stranici tlorisa značilne etaže linijske stavbe sta orientirani v smeri vzhod-zahod, kar vogalnim stanovanjem omogoča dvostransko orientacijo, medtem ko so ostala stanovanja enostransko orientirana. V stolpiču so vsa stanovanja vogalna in dvostransko orientirana. Nosilna konstrukcija je betonska, vključuje prefabricirane sanitarne kabine in inštalacijske bloke za kuhinje. Stanovanjska zazidava Poljane predstavlja značilen primer razvojne stopnje stanovanjske gradnje v obdobju pred nepremičninsko krizo leta 2008, v katerem so stanovanjski skladi v zavesti družbene odgovornosti močno vplivali na kakovost načrtovanja in graditve stanovanj.

All in all, the analysed building represents all the characteristics of post-war typified housing structure with an inflexible spatial and design concept, uniform layout solutions dictated by the lack of building materials and bathroom equipment, poor construction and finishing works, and a deficient public utility infrastructure [Pirkovič-Kocbek, 1982].

The second building, a residential block in the Jugomont housing estate, built in 1967 is a typical example of a construction with industrially prefabricated components. It represents the predominant typology of residential building in former Yugoslavia, built between 1960 and 1985 [Jovanović et al., 2012]. Prefabricated systems ensured a faster, cheaper and better quality of the construction forced by both investors and development contractors [Mercina, 2006]. We analysed a six-storey residential building with 70 dwellings differing in size, from studio flats to 2.5-room dwellings, with two internal staircases positioned in each floor. The floor-layouts are oriented in the east-west direction along the longer sides of the block, with the windows of the smaller dwellings facing one direction only, and the windows of the larger facing two directions. The small bathrooms have no windows (Figure 2). The construction system is based on the Jugomont concrete prefabricated elements, characterised by strictly separate load-bearing and non-load-bearing walls, while the cross-linking load-bearing system, with a width of 372 cm, is represented by a central longitudinal wall [Mercina, 2006].

The prefabricated façade elements are made of concrete in combination with sandwich panels with sheet metal coating. In the Poljane housing estate, constructed in 2007, we analysed the dwellings in a linear residential block and in a point building, both connected by an underground parking garage. The buildings comprise all together 65 non-profit dwellings of different size, from studios to 3.5-room dwellings. The typical dwelling layout concept is based on zoning of functions divided in the 'living' area with kitchen, dining area, living area and balcony, and in the 'sleeping' area with one or two bedrooms, and a bathroom. In each floor, the dwellings are positioned around a central communication core. The longer sides of the linear building are oriented east-west, which means that the windows in corner dwellings are facing two directions, while the windows in other dwellings are facing only one direction. In the point building, all dwellings are of corner type and therefore, they have windows facing two directions (Figure 3). The load-bearing structure in concrete includes prefabricated sanitary units and installation blocks for kitchens. The Poljane housing estate is a typical example of a housing development before the economic crisis in 2008. At that time, the awareness of social responsibility of public housing funds had a stronginfluence on the quality of urban and architectural design.

4.1. Characteristics and limits of testing the use value of dwellings in Slovenia

As already explained, in this paper we focused our research on the use value assessment at the level of individual dwelling, the most significant category of the UVAD method in view of renovation projects. Since the precondition for the UVAD assessment of individual dwellings is the compliance with minimum standards regarding the room size and furnishing, we first compared them with the Slovenian Rules on Minimum Technical Conditions for the Construction of Residential Buildings and Dwellings [2011].

We found that the essential difference between them is in the categorization of dwellings. In Slovenia, the minimum standards are based on the number of household members, while the UVAD ranks the dwellings into categories based on the number of rooms, thereby enabling their versatile use independently of the number of residents. In order to compare the minimum conditions of the UVAD with the Slovenian ones (Table 1), the minimum floor area of dwellings was determined by standards of the Rules on the Rental of Non-profit Dwellings [2004].

NO. OF ROOMS IN THE DWELLING	1 ($14m^2$)	2 ($14m^2+10m^2$)	3 ($2x14m^2+10m^2$)	4 ($2x14m^2+2x10m^2$)
PLANNED NO. OF PERSONS IN THE DWELLING	1-2	3	4-5	6
MIN. NET RESIDENTIAL FLOOR AREA	30 m^2	45 m^2	60 m^2	80 m^2
	1 person: over 20 m^2 2 persons: over 30 m^2	over 45 m^2	4 persons: over 55 m^2 5 persons: over 65 m^2	over 75 m^2
COMMUNICATIONS	at least 90 cm in width, with 120x120 cm of room in front of the doors			
	at 1m in width			
NO. OF SEATS IN THE DINING AREA	2 160x160cm 2.5 m^2	3 160x270cm 4.5 m^2	4 180x270cm 5 m^2	6 240x270cm 6.5 m^2
	1 person: 1 2 persons: 2	3	4 persons: 4 5 persons: 5	6
NUMBER OF KITCHEN ELEMENTS OCCUPYING 60X60 CM ON THE FLOOR	4.5 5 m^2	4.5 5 m^2	5.5 6 m^2	5.5 6 m^2
	1 person: 2.7 2 persons: 5.0	5.7	4 persons: 6.3 5 persons: 7	7.3
STORAGE SPACE: NUMBER OF STORAGE UNITS OCCUPYING 60X60 CM ON THE FLOOR	2 - in communications or service areas	2 - in communications or service areas	3 - in communications or service areas	4 - in communications or service areas
	1 person: 2 2 persons: 4 anywhere in the dwelling	6 anywhere in the dwelling	4 persons: 8 5 persons: 10 anywhere in the dwelling	12 anywhere in the dwelling
BATHROOMS	1 - min. area 3.8 m^2	1 - min. area 3.8 m^2	1 - min. area 3.8 m^2	1 - min. area 3.8 m^2 1 - min. area 2 m^2
	1 - basin, tub/shower, toilet	1 - basin, tub/shower 1 - basin, toilet	4 persons: 1 - basin, tub/shower 1 - basin, toilet 5 persons: 1 - basin, tub/shower, toilet 1 - basin, toilet	1 - basin, tub/shower, toilet 1 - basin, toilet
PRIVATE OUTDOOR AREA	3 m^2	3 m^2	3 m^2	3 m^2
	no requirements	no requirements	no requirements	no requirements

LEGEND: UVAD minimum requirements

Slovenian minimum requirements

Tabela 1: Primerjava minimalnih zahtev SVS z zahtevami Pravilnika o minimalnih tehničnih zahtevah za graditev stanovanjskih stavb in stanovanj.
Table 1: Comparison between minimum requirements of the UVAD and the Rules on Minimum Technical Conditions for the Construction of Residential Buildings and Dwellings.

4.1. Značilnosti in omejitve preizkusa vrednotenja kakovosti stanovanj v slovenskih razmerah

Kot že navedeno, smo raziskavo omejili na segment vrednotenja uporabne vrednosti arhitekturnih rešitev na ravni posameznih stanovanj, ki po našem mnenju predstavlja najpomembnejšo skupino kazalnikov za ocenjevanje kakovosti obstoječih stanovanj za potrebe prenove. Ker je v Švici predpogoj za ocenjevanje stanovanj s SVS izpolnjevanje minimalnih pogojev glede velikosti in opremljenosti prostorov, smo lete najprej primerjali z minimalnimi zahtevami, ki jih predpisuje Pravilnik o minimalnih tehničnih zahtevah za graditev stanovanjskih stavb in stanovanj [Ur. l. RS, 2011]. Ugotavljamo, da je bistvena razlika med švicarskimi in slovenskimi v tem, da so slovenska določila v zvezi z velikostjo stanovanja in prostorov v Sloveniji vezana na število oseb v gospodinjstvu, medtem ko je SVS v tem pogledu fleksibilnejši, saj določa velikost in opremljenost stanovanj glede na število sob ter s tem omogoča raznovrstno rabo stanovanj, neodvisno od števila stanovalcev. Za primerjavo minimalnih pogojev SVS z zahtevami Pravilnika o minimalnih tehničnih zahtevah za graditev stanovanjskih stavb in stanovanj (Tabela 1) smo minimalno velikost površin stanovanj določili na osnovi Pravilnika o dodeljevanju neprofitnih stanovanj v najem [Ur. l. RS, 2004]. Tak pristop je bil izvedljiv le pri manjših stanovanjih, pri večjih stanovanjih so razlike namreč prevelike in onemogočajo primerjavo: po slovenskem pravilniku se stanovanja, namenjena več kot šestim osebam, za vsako nadaljnjo osebo v gospodinjstvu povečajo za 6 m2, po SVS pa vsak dodatni prostor narekuje povečanje skupne površine stanovanja za 20 m^2.

Primerjava minimalnih švicarskih in slovenskih določil pokaže največja odstopanja pri zahtevah o številu kopalnic, količini omar za shranjevanje in velikosti zunanjega bivalnega prostora. Slovenski pravilnik namreč ne vključuje minimalnih površin posameznih prostorov. V luči te ugotovitve ni presenetljivo, da obravnavana stanovanja po opremljenosti bistveno ne odstopajo od zahtev SVS, medtem ko se največje razlike pojavijo zaradi premajhnih površin sob in kopalnic ter zunanjih površin. Glede na to, da so bila vsa stanovanja zgrajena pred sprejetjem Pravilnika o minimalnih tehničnih zahtevah za graditev stanovanjskih stavb in stanovanj [Ur. l. RS, 2011], je razumljivo, da nekatera med njimi ne dosegajo niti minimalnih zahtev slovenskega pravilnika, predvsem glede velikosti kopalnic. Prav dejstvo, da ocenjujemo že obstoječa stanovanja in ne načrtovanih novogradenj, je bilo razlog za to, da stanovanj, ki niso dosegala vseh minimalnih zahtev, nismo izključili, smo pa določene kazalnike glede na zaznane pomanjkljivosti ovrednotili nižje. Po tem, ko smo zbrali razpoložljive podatke, smo ugotovili, da razpolagamo s podatki za vrednotenje po desetih kazalnikih od enajstih v SVS, saj določenih podatkov za obe starejši zazidavi, Metalna in Jugomont, nismo uspeli pridobiti. V raziskavi smo tako ocenjevali uporabno vrednost stanovanj za vsako posamezno stanovanje po kriterijih desetih kazalnikov, ki je vključevalo 18 stanovanj v stanovanjski zazidavi Metalna, 70 stanovanj v stanovanjski zazidavi Jugomont ter 65 stanovanj v stanovanjski zazidavi Poljane, skupaj 153 stanovanj. Zatem smo sešteli vrednosti točk po posameznih kazalnikih za vsa stanovanja v večstanovanjski stavbi, skupno vrednost točk delili s številom stanovanj v stavbi ter tako pridobili primerjalne vrednosti posameznih kazalnikov za celotno stavbo kot značilno za vsako od treh stanovanjskih zazidav, predstavljenih v Sliki 7. Dodatna tabela posreduje informacije o posplošeni povprečni vrednosti na osnovi vsote desetih kazalnikov za posamezno stanovanjsko zazidavo.

4.2. Kazalniki in kriteriji ocenjevanja uporabne vrednosti stanovanj v treh stanovanjskih zazidavah

(1) Površina stanovanja. Kazalec temelji na predpostavki, da se z večanjem površine stanovanja povečajo možnosti načinov njegove uporabnosti, zaradi ekonomičnosti izrabe prostora pa je določena največja skupna površina stanovanja glede na število sob. Več točk stanovanjem prinaša večja višina in širina prostorov ter dodatni prostori.

Slika 4: Prikaz načina ocenjevanja kazalnika raznovrstne rabe prostorov v stanovanju soseske Jugomont. Lega stanovanja v tlorisu objekta je označena na Sliki 2.

Figure 4: Assessment of the multifunctionality of rooms in a Jugomont housing estate dwelling. The position of the dwelling in the buildings' floor plan is marked in Figure 2.

This approach was possible to apply only in the case of smaller dwellings since in larger dwellings the differences between both systems are too great. Namely, in accordance with Slovenian rules, the floor area in dwellings, intended for more than six persons, increases by 6 m^2 for every person, while the UVAD requires 20 m^2 floor area for every additional room.

The comparison of minimum between Swiss and Slovenian requirements reveals a divergence in the requirements regarding the number of bathrooms, the amount of storage closets and the size of the outdoor living area. Slovenian rules do not include standards on the size of individual spaces. In light of these findings, the evaluation of furnishings in dwellings did not significantly deviate from the minimum requirements of the UVAD, while in some dwellings the size of rooms, bathrooms and outdoor areas was too small. Since all of the analysed dwellings were built before the adoption of the Rules on Minimum Technical Conditions for the Construction of Residential Buildings and Dwellings, it is understandable that certain dwellings did not meet the minimum Slovenian requirements, mainly in regard to the size of bathrooms. As we assessed the existing dwellings and not the new ones, we decided not to exclude the dwellings which did not meet the minimum requirements, but rather to assess them with equivalently less points.

After examining the available data needed for the evaluation, we realised that could not obtain the necessary information regarding all the eleven indicators for the older housing estates Metalna and Jugomont. Thus, we assessed the ten indicators for 18 dwellings in the Metalna housing estate, 70 dwellings in the Jugomont housing estate, and 65 dwellings in the Poljane housing estate. The UVAD was tested by the assessment of the indicators for individual dwelling. Then, we added up the points of dwellings in a building and divided the sum by the number of dwellings in order to obtain comparative values of ten indicators for analysed buildings presented as a table in the Figure 7. The additional table provides the information on the average values housing estates calculated as a sum of comparative values of assessed buildings.

4.2. The indicators and criteria to access the use value of dwellings in three housing estates

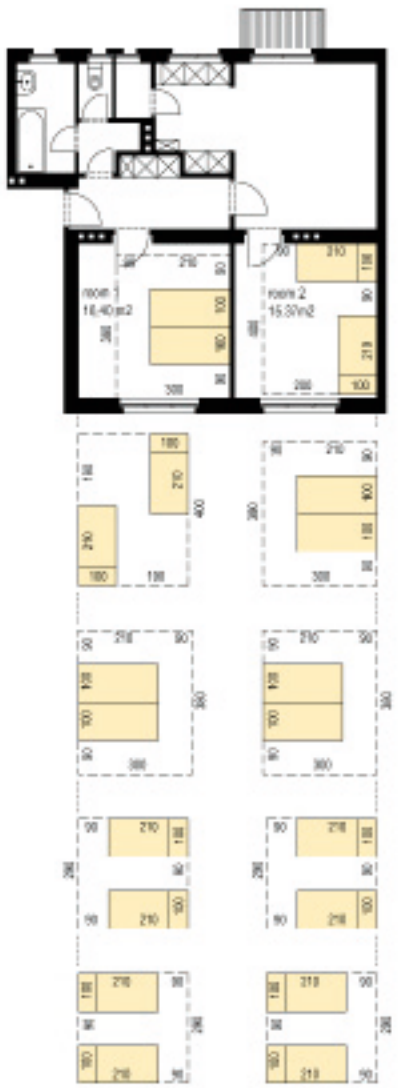
(1) Dwelling floor area. The indicator is based on the premise that a larger floor area increases the usability of dwelling. Simultaneously, the UVAD determines the maximum total dwelling floor area in relation to the number of rooms to ensure economic use of space. Additional points are attained for over-average room heights and widths, as well as for additional usable spaces. Considering these requirements, the dwellings in the Metalna housing estate received no points, as the total surface area is too large due to comparatively spacious rooms and dining areas. Similar results were attained by some of the larger dwellings in the Poljane housing estate. The majority of the dwellings in the Jugomont housing estate are optimally-sized and therefore, they attained the highest number of points.

(2) Size of the rooms and additional spaces. Here, the assessment is based on the premise that larger rooms allow greater flexibility and usability for residents. Additional points are attained for a bigger floor area of one of the rooms or for a separate entrance hall. The dwelling also attains additional points for flexible spaces as lofts, studios etc. The dwellings in the Metalna housing estate attained the highest number of points due to the spacious rooms. The dwellings in the Poljane housing estate were similarly rated, while the dwellings in the Jugomont housing estate with smaller rooms attained the lowest number of points.

3) Multifunctionality of rooms. The indicator emphasizes the dwellings adaptability by identifying rooms whose measures and proportions allow variety of usage. This is proofed by the number of possible ways of placing the floor area module of 14 m2 in individual rooms (Figure 4). Additional points are attained for an extra floor area, for the exceptional width of the room, and for the orientation toward a less noisy outdoor areas, e.g. the courtyards. In this view, the dwellings in the Metalna housing estate attained the highest number of points, as the area module was possible to place in two rooms. The dwellings in the Poljane were also rated relatively high, while the dwellings in the Jugomont housing estate attained a lower number of points due to smaller floor areas and an unfavourable ratio between the sides of individual rooms in smaller apartments.

Slika 5: Prikaz načina ocenjevanja kazalnika raznovrstne opremljenosti sob v stanovanju stanovanjske zazidave Metalna. Vir: Nataša Šprah. Lega stanovanja v tlorisu objekta je označena na Sliki 1.

Figure 5: Assessment of possible room furnishing in a Metalna housing estate dwelling. The position of the dwelling in the buildings' floor plan is marked in Figure 1.



Glede na te zahteve vsa stanovanja v stanovanjski zazidavi Metalna ostanejo brez točk, saj so zaradi velikih sob in prostorne jedilnice prevelika. Podobno velja tudi za večja stanovanja v stanovanjski zazidavi Poljane. Večina stanovanj soseske Jugomont izkazuje optimalno velikost površin ter dosega najvišje število točk med stanovanjskimi zazidavami.

(2) Velikost sob in dodatnih prostorov. Vrednotenje po tem kriteriju se opira na predpostavko, da so večje sobe fleksibilnejše in s tem za stanovalce bolj uporabne. Dodatne točke stanovanje doseže z večjo površino ene izmed sob, z vetrolovom ali če spada med fleksibilne oblike bivališč (lofti, garsonjere ipd.) Največje število točk dosegajo stanovanja v stanovanjski zazidavi Metalna, podobno so ovrednotena tudi stanovanja v stanovanjski zazidavi Poljane, stanovanja v soseski Jugomont pa z manjšimi površinami sob dosegajo najnižje število točk.

(3) Raznovrstna raba prostorov. Pri tem kazalcu je izpostavljena prilagodljivost stanovanja, saj sobe vrednotimo glede uporabnosti za različne namene, ki daje prednost prostorom, ki po svoji površini in razmerjih stranic omogočajo fleksibilno in adaptabilno rabo. Preverjamo jo z možnostjo umestitve modula površine 14 m^2 v posamezne prostore (Slika 4). Dodatne točke prinaša dodatna površina v sobi, večja širina prostorov in orientacija na manj hrupen zunanji prostor, na primer na dvorišče. Po tem kriteriju stanovanja v stanovanjski zazidavi Metalna dosegajo največje možno število točk, saj je modul mogoče umestiti v obe sobi. Tudi stanovanja v stanovanjski zazidavi Poljane so visoko ovrednotena, medtem ko stanovanja v soseski Jugomont zaradi manjših tlorisnih površin in neugodnega razmerja stranic posameznih sob v manjših stanovanjih dosegajo manjše število točk.

(4) Opremljenost sob. Pri kazalcu opremljenosti so merodajni velikost in mere stranic ter položaja vhoda in oken, ki omogočajo različne možnosti opreme in uporabe sobe. Za vrednotenje preverjamo število možnih umestitev modula enega ali dveh ležišč (Slika 5).

V sobah površine nad 12 m^2 smo preverjali umestitve dvojnega oz. dveh enojnih ležišč, v sobah velikosti med 10 in 12 m^2 pa enojnega ležišča. Dodatne točke prinaša možnost umestitve dvojnega ležišča v več kot samo en prostor ter dodaten prostor ob ležišču in zlasti kadar omogoča obračanje invalidskega vozička. Najvišje število točk dosegajo stanovanja v stanovanjski zazidavi Metalna, saj je v prostorne sobe možno umestiti več modulov dveh ležišč. Tudi stanovanja v stanovanjski zazidavi Poljane dosegajo veliko število točk na račun velikih površin sob in ugodnih razmerij stranic sob ter primerne razporeditve okenskih odprtin. Najnižje število točk spet dosega stanovanjska soseska Jugomont.

(5) Kuhinja in jedilnica. Kazalec za ta dva stanovanjska prostora vrednoti možnosti povezave med jedilnim prostorom in kuhinjo, naravno osvetlitev in naravno prezračevanje kuhinje, postavitev dodatnih sedišč v jedilnici ter možnosti postavitve jedilnega kota/jedilnice v več kot en prostor. Najnižje število točk dosegajo stanovanja v stanovanjski zazidavi Jugomont, kjer v jedilnici ni možno umestiti dodatnih stolov, kuhinje pa v večini stanovanj niso naravno osvetljene. Enako velja tudi za kuhinje v stanovanjih v stanovanjski zazidavi Poljane, ki pa v večjih stanovanjih zaradi velike površine jedilnic in možnosti postavitve jedilnice v dodatni prostor prinašajo stanovanjem dodatne točke. Stanovanja v stanovanjski zazidavi Metalna z direktno osvetljenimi kuhinjami in velikimi površinami jedilnic dosegajo najvišje vrednosti.

(6) Kopalnice. Pri tem kazalcu je pomembno število elementov kopalniške opreme. Dodatne točke prinašajo umestitev oken v sanitarne prostore in možnost uporabe kopalnice za invalide. Ugotavljamo, da število elementov opreme v vseh stanovanjih ustreza, kar pa ne velja za velikost površin sanitarnih prostorov. Kopalnice v stanovanjih v soseski Jugomont, kot tudi kopalnice v večini stanovanj v stanovanjski zazidavi Poljane, so namreč manjše od zahtevanih. Izjema so kopalnice v stanovanjih, namenjenih gibalno oviranim osebam, ki so primerne velikosti. Enako velja tudi za kopalnice v stanovanjih v stanovanjski zazidavi Metalna, ki z naravno osvetlitvijo kopalnic dosegajo najvišjo vrednost točk.

Slika 6: Prikaz načina ocenjevanja kazalnika prilagodljivosti prostorov v stanovanju stanovanjske zazidave Poljane. Lega stanovanja v tlorisu objekta je prikazana na Sliki 3.
Figure 6: Assessment of adaptability of rooms in a dwelling in the Poljane housing estate. The position of the dwelling in the buildings' floor plan is marked in Figure 3.

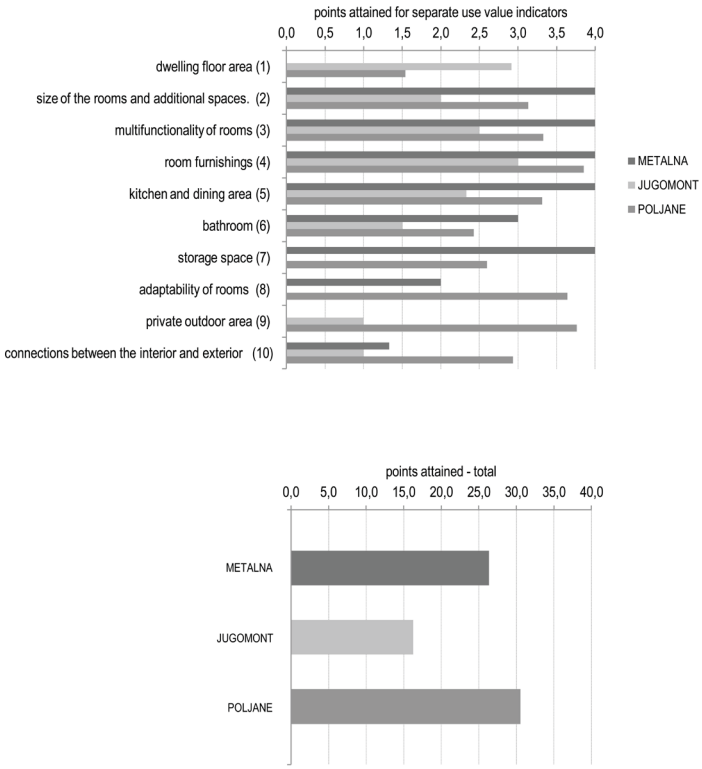
4) Room furnishings. Here, room dimensions and the positioning of the entrance and the windows, allowing different furnishing and usability of the rooms, are appraised. This is accomplished by counting the number of possible ways of placing a floor area module for one or two beds (Figure 5). We counted possible ways of placing a double bed or two single beds in rooms larger than 12 m^2 and of a single bed in rooms between 10 and 12 m^2. Additionally, the possible ways of placing a double bed in more than one room and an additional space for a wheelchair next to the bed are counted. The dwellings in the Metalna housing estate attained the highest number of points, as the rooms allowed the placement of several modules of two beds. The dwellings in the Poljane housing estate also attained a high number of points because of large rooms, favourable ratios between the sides of rooms and appropriate positioning of windows. Again, the dwellings in the Jugomont housing estate attained the lowest number of points.

(5) Kitchen and dining area. The indicator evaluates the possible ways to connect the dining area with the kitchen, the daylighting and ventilation of the kitchen, the possible placing of additional chairs in the dining area, and the possibility of placing the dining area in more than one room. The dwellings in the Jugomont housing estate attained the lowest number of points, as there was no space for additional chairs in the dining areas and the kitchens have no windows. The latter also applies to kitchens of the dwellings in the Poljane housing estate which, however, attained additional points for large dining areas and, in larger dwellings, for the possibility of placing the dining area in an additional room. The dwellings in the Metalna housing estate attained the highest number of points because of kitchen windows and large dining areas.

(6) Bathroom. Here, appropriate sanitary equipment in bathrooms is evaluated. Additional points are attained for bathroom windows and for bathrooms suitable for disabled persons. While the sanitary equipment in bathrooms was appropriate in all dwellings, the size of most of the bathrooms did not meet the minimum UVAD requirements. The bathrooms in the Jugomont housing estate and in the majority of dwellings in the Poljane housing estate are smaller than required, with the only exception of dwellings for disabled persons on the ground floor. Since bathrooms in the dwellings in the Metalna housing estate have windows and are large enough, this estate attained the highest points.

(7) Storage space. The indicator investigates the possibilities of placement of additional storage units in spaces, whose primary function is not 'living', such as in kitchens, bathrooms, pantries, and corridors. It also assesses the number of possible ways of placing a basic module of a closet measuring 60x60x180 cm. In view of this, the built-in closets, pantries, and outdoor storage rooms bring additional points. The dwellings in the Jugomont housing estate did not achieve points, since narrow corridors, and small floor areas of kitchens and bathrooms do not allow the fitting of additional closets. On the other hand, the dwellings in the Metalna housing estate with its spacious corridors, bathrooms, kitchens and pantries attained the highest number of points. Due to wide corridors, the dwellings in the Poljane housing estate attained a relatively high number of points.

(8) Adaptability of rooms. The indicator highlights the ability of the dwelling space adapted in a simple way adapted to the changeable needs of residents. It relates to the number of non-load-bearing walls that can be easily removed, and the possibility to install additional walls to create a new room with the floor area of at least 10 m^2, with daylight and natural ventilation. Additional points are attained if the primary construction system (load-bearing walls), the secondary system (partitions), and the furnishing are structurally separated. The possibility of installing movable wall elements, including sliding, folding or double doors to enable the connection or separation of rooms is also evaluated. Additionally, the rooms with the possibility to be adjoined to the neighbouring dwellings also received points. The dwellings in the Jugomont housing estate did not attain points, as the walls between rooms are load-bearing and cannot be easily removed, and a subdivision of small rooms would have no effect. On the contrary, the rooms in the Metalna housing estate dwellings were easily joined to each other, however, in rooms no new partitions were possible to install. The dwellings in the Poljane housing estate attained the highest points, since the non-load-bearing walls can be easily removed, and, in some dwellings within the 'living' area new rooms with a floor area of a minimum of 10 m^2 with a window were possible to arrange (Figure 6).



Slika 7: Prikaz načina ocenjevanja kazalnika prilagodljivosti prostorov v stanovanju stanovanjske zazidave Poljane.
Figure 7: Assessment of adaptability of rooms in a dwelling in the Poljane housing estate.

(7) Prostori za shranjevanje. Posebnost kazalca je v vrednotenju možnosti dodatne opreme za shranjevanje v prostorih, kot so kuhinja, kopalnica, shramba in hodnik, ki niso v prvi vrsti namenjeni bivanju. Pri tem vrednotimo možnosti umestitve osnovnega modula omare 60x60x180 cm. Dodatne točke prinašajo možnosti vgradnih omar in shramb ter prostori za shranjevanje na zunanjih površinah. Po tem kazalcu stanovanja v soseski Jugomont ne dosegajo točk, saj ozki hodniki ter majhne površine kuhinj in kopalnic ne omogočajo postavitve dodatnih omar. Nasprotno pa stanovanja v stanovanjski zazidavi Metalna s prostornimi hodniki, kopalnicami, kuhinjami in shrambami dosegajo najvišje vrednosti točk, ki se jim po zaslugi širokih hodnikov približajo vrednosti stanovanj v stanovanjski zazidavi Poljane.

(8) Prilagodljivost prostorov. Kazalec izpostavlja hitro prilagodljivost spreminjajočim se potrebam stanovalcev. Določila se nanašajo na število nenosilnih sten, ki jih je možno brez težav odstraniti, možnost postavitve dodatnih sten, pri čemer mora novonastali prostor imeti površino najmanj 10 m^2, naravno osvetlitev in prezračevanje. Pomembna je strukturna ločitev primarnega konstrukcijskega sistema nosilnih sten od sekundarnega sistema predelnih sten in opreme. Upošteva se tudi možnost postavitve premičnih elementov, kot so drsna, zgibna ali dvojna vrata, ki omogočajo takojšnjo povezavo ali ločitev dveh prostorov. Prav tako se vrednotijo sobe, ki jih je mogoče priključiti sosednjemu stanovanju. Ugotavljamo, da stanovanja v soseski Jugomont po tem kazalcu ostajajo brez točk, saj so vsi ločilni zidovi med sobami nosilni in jih je težko odstraniti, naknadna delitev majhnih površin prostorov pa ni smiselna. V stanovanjih v stanovanjski zazidavi Metalna je, nasprotno, možno na enostavni način združiti sobi, vendar postavitev novih predelnih sten v sobah ni možna, saj novonastali prostori ne bi dosegli zahtevane površine 10 m^2. Najvišjo vrednost dosegajo stanovanja v stanovanjski zazidavi Poljane, kjer je možno enostavno odstraniti nenosilne zidove med sobami, v bivalnem prostoru nekaterih stanovanj pa oddeliti prostor z oknom velikosti najmanj 10 m^2 (Slika 6).

(9) Zasebni zunanji prostor. Po tem kazalcu vsakemu stanovanju pripada zasebni zunanji prostor, katerega najmanjša velikost je odvisna od števila sob v stanovanju.. Višje so vrednotene zunanje površine, ki so umeščene na manj hrupni strani zazidave, dostopne iz dveh ali več prostorov ter zaščitene pred pogledi in vremenskimi vplivi, kot jih predstavljajo (lože ipd.). Stanovanja v stanovanjski zazidavi Metalna so zaradi pomanjkanja zasebnih zunanjih prostorov v pritličnih stanovanjih in premajhnih površin balkonov glede na velikost stanovanj v nadstropjih ostala brez točk. V soseski Jugomont so balkoni samo pri večjih stanovanjih, različno velika stanovanja v stanovanjski zazidavi Poljane pa glede na navedena določila kljub enako velikim balkonom/loggiam dosegajo različne vrednosti točk.

(10) Prehodi med notranjostjo in zunanjostjo. Po tem kazalcu vrednotimo vizualno in fizično obliko povezave notranjega prostora stanovanja z zunanjim, ki vključuje orientacijo oken in kakovost pogledov, zimski vrt in vetrolov ter čim širši prehod v zunanji bivalni prostor in možnost zapiranja s pomičnimi elementi. Dodatne točke prinašajo odprtine v višini prostora. V osnovi ugotavljamo, da stanovanja v vseh treh zazidavah nimajo prostorov, v katerih so okna, ki bi bila orientirana proti severu. Najvišjo vrednost po tem kriteriju dosegajo stanovanja v stanovanjski zazidavi Poljane, ki razpolagajo s prostori z različno orientiranimi okni, kar velja tudi za določena stanovanja v stanovanjski zazidavi Metalna. V stanovanjski soseski Jugomont nobeden izmed prostorov ne razpolaga z različno orientiranimi okni, kar je tem stanovanjem pri zadnjem kriteriju prineslo najnižje število točk.

Skupni rezultati ocenjevanja uporabne vrednosti stanovanj po desetih kazalnikih v treh stanovanjskih zazidavah izkazujejo velike razlike med njimi (Slika 7). Ugotavljamo, da stanovanja v stanovanjskih zazidavah Metalna in Jugomont kar po dveh različnih kazalnikih ne dosegajo nobenih točk. Tako so stanovanja v zazidavi Metalna ostala brez točk pri kazalnikih površine stanovanj (1) zaradi prevelike površine in pri zasebnih zunanjih prostorih (9), saj so le-ti premajhni oziroma neobstoječi.

(9) Private outdoor area. In accordance with this indicator, every dwelling should have a private outdoor area. The number of points attained depends on the size of the private outdoor area in correlation to the floor area of the dwelling. Additional points are given for the outdoor areas on the less noisy side of the estate, accessible from two or more rooms and protected from view (e.g. loggias). Due to the lack of private outdoor areas on the ground floor and to the insufficient size of balconies on the first and the second floor, the dwellings in the Metalna housing estate did not attain any points. In the Jugomont housing estate, only larger dwellings have balconies, while in the Poljane housing estate due to different size of outdoor floor areas the dwellings with equally sized loggias/balconies attained a different number of points.

(10) Connections between interior and exterior. This indicator assesses the visual and physical form of the connection between the interior and the exterior, including the sun orientation of windows and the quality of views, a greenhouse and the size of the physical connection to the outdoor living area. Room-high windows bring additional points. We concluded that the dwellings in all three housing estates generally do not have windows oriented to the north. The dwellings in the Poljane housing estate attained the highest number of points due to the windows facing in different directions, which was also the case in the corner dwellings in the Metalna housing estate. As all rooms in the Jugomont housing estate have windows facing only one direction, these dwellings attained the lowest number of points.

A comparison of the use value of dwellings in three housing estates assessed by ten indicators identified significant differences between them (Figure 7). The dwellings in the housing estates Metalna and Jugomont did not attain any points for two indicators, in the Metalna housing estate for the indicator according to the dwelling floor area because of their unfavourable spaciousness (1), and for private outdoor area that is too small or even non-existent (9). The lack of storage space (7) proved to be a deficiency of dwellings in the Jugomont housing estate, whose rigid construction system with minimum dimensions did not enable any adaptability of rooms (8). Despite the low number of points for most indicators, the dwellings in the Jugomont housing estate received a surprisingly high number of points in regard to the indicator of the floor area of the dwellings (1), which can be explained by the fact that while limiting the size of the dwelling for reasons of economy, this indicator serves as a counterweight to the others. Extremely spacious dwellings in the Metalna housing estate are the only ones to attain the highest number of points for as many as six indicators. This is due to the large size of rooms (2) which enabled multifunctionality (3) and a variety of possible furnishing (4). The maximum number of points was granted to spacious kitchens and dining areas with daylight (5) and the diverse possibilities of storage placement (7). The dwellings in the Poljane housing estate attained points for all indicators, ranging from a relatively low number of points for indicators of surface area (1), an average number of points for the connections between the interior and exterior (10), bathroom (6), storage space (7), size of rooms and additional spaces (2), multi-functionality of rooms (3), kitchen and dining area (5), to the highest number of points attained for the adaptability of rooms (8), the size of private outdoor area (9), and room furnishings (4). The final presentation of the average use values shows a noticeably low value for dwellings in the Jugomont housing estate. We estimate that the reason for this is a general inflexibility in the use of dwellings and the minimum size of floor areas mainly due to the technology of prefabricated concrete components and rigid construction grids that do not allow any subsequent joining and division of rooms. The use value of dwellings in the Metalna housing estate was assessed higher, particularly due to the timelessly universal conception of dwellings' layouts with relatively large rooms linked by a central corridor in each floor. Conventional construction in brick masonry is also a vital advantage that allows adaptability of the interior layout in accordance with the changing needs of residents. The dwellings in the Poljane housing estate attained the highest average use value due to the dwellings' layout concepts and the construction system representing a mixture of the other two housing estates characteristics.

Kazalnik prostorov za shranjevanje (7) se pokaže kot največja pomanjkljivost stanovanj v zazidavi Jugomont, ki obenem zaradi rigidnega konstrukcijskega sistema minimalnih razponov ne prinašajo točk pri kazalniku prilagodljivosti zasebnega prostora (8). Kljub nizki vrednosti točk pri večini ostalih kazalnikov stanovanja v stanovanjski zazidavi Jugomont dosegajo nadpovprečne vrednosti pri kazalniku površine stanovanja (1), kar je mogoče razložiti z dejstvom, da ta kriterij z zgornjo omejitvijo velikosti zaradi ekonomičnosti služi kot protiutež vsem ostalim kazalcem.

Tako je razumljivo, da (pre) prostorna stanovanja v stanovanjski zazidavi Metalna kot edina po kar šestih kazalnikih dosegajo najvišje vrednosti. Točke prinašajo kazalniki ocenjevanja prostornosti sob (2), raznovrstne rabe prostorov (3) in opremljenosti sob (4). Najvišje so ocenjene tudi prostorni in naravno osvetljeni kuhinja in jedilnica (5) in številne možnosti glede opremljenosti prostorov za shranjevanje (7). Visoka uporabna vrednost stanovanj v stanovanjski zazidavi Poljane je razvidna v vrednotenju vseh kazalnikov, ki izrazito odstopajo v številu točk. Lete segajo od relativno nizke vrednosti za kazalnik površine stanovanj (1) in naraščajo pri kazalnikih ocenjevanja možnih prehodov iz notranjosti v zunanjost (10), sanitarnih prostorov (6), prostorov za shranjevanje (7) ter velikosti sob in dodatnih prostorov (2), možnosti raznovrstne rabe prostorov (3), kuhinje in jedilnice (5), do najvišjih vrednosti za kazalnike ocenjevanja prilagodljivosti zasebnega prostora (8), zasebnih zunanjih prostorov (9) in opremljenosti sob (4).

Prikaz povprečnih vrednosti vseh desetih ocenjevanih kazalnikov uporabne vrednosti (Slika 7) pokaže opazno najnižje vrednosti za stanovanja stanovanjske zazidave Jugomont. Razloge gre iskati v splošni nefleksibilnosti stanovanjskih zasnov in minimalnih površin posameznih prostorov, ki so v največji meri posledica tehnologije prefabricirane montažne gradnje v togem konstrukcijskem rastru v betonski izvedbi, ki ne dopušča naknadnega združevanja, pa tudi delitve posameznih prostorov.

Uporabna vrednost stanovanj v stanovanjski zazidavi Metalna je ovrednotena veliko višje po zaslugi univerzalno zasnovane tlorisne zasnove stanovanj z velikimi sobami, nanizanimi ob centralnem hodniku. Klasična opečna gradnja prav tako predstavlja bistveno prednost z vidika možnosti prilagajanja notranje ureditve spreminjajočim se potrebam stanovalcev.

Najvišjo povprečno uporabno vrednost dosegajo stanovanja v stanovanjski zazidavi Poljane, ki v tlorisnih zasnovah in konstrukcijskem sistemu predstavlja določeno mešanico ostalih dveh zazidav. Tlorisna zasnova posameznih etaž je v primerjavi s stanovanjsko zazidavo Metalna racionalnejša, prefabricirane sanitarne enote, sicer brez naravne svetlobe, pa omogočajo hitrejšo gradnjo. Relativno velike sobe ločujejo nenosilne predelne stene, ki omogočajo združevanje v večje prostore, pa tudi določene delitve v manjše.

5. Diskusija in sklep

V zadnjih desetletjih se zaradi zmanjšanja dejavnosti na področju stanovanjske gradnje in posledično pomanjkanja stanovanj v Sloveniji zmanjšuje tudi vloga arhitekturnega načrtovanja stanovanj in s tem posredni učinki na kakovost bivanja. Z namenom, da bi z vidika trajnostnih načel osvetlili sedanje razmere na področju stanovanjske kakovosti in z njo povezane stanovanjske politike, katere tradicionalna vloga se zrcali v oskrbi stanovanj za državljane v določenem sistemskem okviru financiranja, smo za potrebe prispevka o vrednotenju kakovosti stanovanj najprej analizirali obstoječe zakonodajne in strateške dokumente.

V zavesti, da številna stanovanja v večstanovanjskih zazidavah, na katere smo se osredotočili, več ne odgovarjajo sodobnim potrebam in zahtevam sedanjih uporabnikov, smo proučili nekatere nove standarde kakovosti arhitekturnega načrtovanja, ki se odražajo v orodjih vrednotenja kakovosti, uporabnih v procesih odločanja zlasti na področju stanovanjske prenove, pa tudi novogradenj.

In comparison to the Metalna housing estate, the floor layout concept of the Poljane housing estate presents a more rational solution. However, the windowless prefabricated concrete sanitary units enabled rapid construction. The relatively large rooms separated by non-load-bearing partition walls can be easily joined.

5. Discussion and conclusion

In recent decades, in Slovenia the shortage of housing construction the discussion addressing the impacts of architectural design on housing quality in theory and practice reduces the importance of the discussion. In view of the Slovenian housing policy, whose has traditional role was the housing provision in frame of an appropriate system, we analysed applicable regulations and standards related to housing quality. Being conscious about current conditions, we researched new incentives of architectural design standards that promote the quality dwellings that meet the needs of current residents. The aim of the paper was to consider different approaches to the assessment of housing quality with primary focus on the usability of dwellings. The study of literature on methods and tools to evaluate the quality of dwellings from different viewpoints was concentrated on the endeavours to find an appropriate tool to be proofed for Slovenian conditions. The decision to apply the predominantly numerical Swiss method UVAD was based on its feature of the housing quality assessment, exclusively from the viewpoint of use value for residents and, additionally, on the experience of the UVAD tool conducted for housing estates in the neighbouring city of Graz. Our intention was to test the method by evaluating the dwellings, characteristic for multi-family residential construction in the city of Maribor, by taking into account the housing typologies of the housing estates Metalna, Jugomont, and Poljane. After checking the available data we decided to investigate only one category of the UVAD that determines the criteria of ten indicators at the level of individual dwellings. Since the relevant Slovenian documents do not include specific requirements of housing quality we first carried out preliminary analyses of comparable Swiss standards and Slovenian rules and regulations. The analyses acquired a variety of points in regard to different indicators for assessing the dwellings and buildings. The results based on the generalized average values for housing estates distinctly differ from each other. Though expected to a certain extent, they indicate specific features of housing typologies in the past decades. However, it has to be mentioned that they do not directly depend on the age of buildings but are predominantly related to economic, social, and technical conditions of housing policies at one side, and the availability of the construction industry. The idea to test the Swiss tool UVAD for Slovenian conditions has proved as applicable. In comments concerning each indicator we exposed the main characteristics of dwellings in order to stress the advantages and weaknesses of analysed housing typologies. Our intention was also to highlight decisive shortcomings in view of possible recommendations. First, it may be pointed out that the comparison between Swiss and Slovenian requirements has opened several unclear definitions. Accordingly, a special attention has to be paid to the criterion of available floor area of rooms and associated private outdoor areas, as well as to the size of bathrooms, which in some dwellings did not achieve the minimum of requirements. Second, we recommend the issues addressing the flexibility and the adaptability of dwelling space as a norm, inclusively the adaptability for the disabled and ageing population for entire housing fond, followed by the requirement to enable the joining and division of rooms in accordance to the changes of households during the entire dwellings' lifetime. Last but not least, we recommend specific indicators with detailed criteria on house furnishing and availability of storerooms which have significant impacts on housing quality in everyday life. All in all, the results of the use value testing of dwellings in Maribor demonstrate the need to raise the quality of existing housing fond in Slovenia. Promoting the aspects of social sustainability, we recommend the decision makers, politicians and designers to introduce an innovative quality assessment tool applicable in planning proccesses of building renovation and new housing developments.

Cilj prispevka je bil izbrati iz nabora metod in orodij, predstavljenih v literaturi in praksi, takšen sistem vrednotenja kakovosti stanovanj, ki bo primarno osredotočen na stanovalce in bo uporaben tudi v slovenskih razmerah.

Odločitev za preučitev švicarskega sistema vrednotenja stanovanj (SVS) je bila osnovana na objektivno merljivih kazalnikih za ocenjevanje kakovosti stanovanj, ki je zasnovan izključno z vidika uporabnika. Dodaten razlog so bile izkušnje z uporabo SVS v raziskavi obstoječih stanovanjskih zazidav, zgrajenih v preteklih desetletjih v avstrijskem Gradcu, ki jih ocenjujemo kot tipološko sorodne slovenskim. Namen raziskave, ki je temeljila na obstoječi študiji ene od avtoric, je bil testirati orodje SVS za ocenjevanje uporabne vrednosti stanovanj v treh stanovanjskih zazidavah v Mariboru (Metalna, Jugomont, Poljane), ki jih zaznamujejo značilne arhitekturne in konstrukcijske rešitve iz treh različnih obdobij organizirane stanovanjske gradnje v Sloveniji. Na osnovi pridobljenih podatkov smo se omejili na raven ocenjevanja stanovanj na osnovi desetih kazalnikov, ki smo ga izvedli z grafičnimi in numeričnimi metodami analize tlorisnih zasnov. Ker slovenski dokumenti ne vsebujejo specifičnih zahtev z vidika uporabne vrednosti, smo predhodno pregledali možne primerljivosti švicarskih in slovenskih določil na področju arhitekturnega načrtovanja stanovanj.

V sklopu raziskave so bili pridobljeni določeni rezultati z vidika uporabne vrednosti, pridobljeni na osnovi ocenjevanja po kriterijih posameznih kazalnikov, pri čemer, nasprotno od pričakovanj, ugotavljamo, da uporabna vrednost ni neposredno odvisna od starosti stanovanj. Razloge za velike razlike med posameznimi stanovanjskimi zazidavami prepoznavamo v ekonomskem in družbenem okolju, ki odraža tudi vplive takrat veljavne stanovanjske politike. Ugotavljamo, da je nizka uporabna vrednost v največji meri posledica minimiziranih stanovanjskih določil in z njimi povezane racionalizacije načrtovanja stanovanj, najizrazitejše v 60-ih in 70-ih letih prejšnjega stoletja, ki je narekovala toge stanovanjske tlorise, omejene praviloma na en način rabe.

Preizkus vrednotenja kakovosti stanovanj z uporabo švicarske metode SVS je pokazal njeno uporabnost tudi v slovenskih razmerah. V komentarjih posameznih kazalnikov izpostavljamo prednosti in slabosti posameznih arhitekturnih rešitev, ki smo jih ocenili po specifičnih kriterijih posameznih kazalnikov z namenom, da jih prepoznamo tudi kot možna priporočila v različnih procesih načrtovanja in prenove. Primerjava slovenskih in švicarskih minimalnih zahtev ter priporočil je pokazala na različne definicije pri nekaterih določilih. Zlasti to velja za primerno velikost sob in zunanjih ter sanitarnih prostorov, ki ponekod niso zadostovali zahtevam. Naslednje generalno priporočilo velja vključevanju fleksibilnosti in adaptabilnosti stanovanjskih prostorov kot osnovni zahtevi uporabne vrednosti s poudarkom na možnostih prilagajanja starejšim in gibalno oviranim, kar naj velja normativno za vsa stanovanja. V stanovanjih se visoko cenijo tudi možnosti raznovrstnega povezovanja in delitve prostorov, ki sledijo spremembah struktur in navad uporabnikov v različnih življenjskih obdobjih. Ne nazadnje so izjemno koristna tudi izrazito praktična priporočila, kot so dodatne možnosti za opremljanje in shranjevanje izven konvencionalnih načinov v stanovanjskih zasnovah ipd.

Sklepne ugotovitve ocenjevanja uporabne vrednosti stanovanj z vidika stanovalca, ki smo jih pridobili s testiranjem vrednotenja kakovosti stanovanj v treh soseskah v Mariboru, lahko strnemo v spoznanju, da se kažejo veliki potenciali za dvig kakovosti, zlasti obstoječega stanovanjskega fonda, ki jih je možno izkoristiti s celostnim pristopom k načrtovanju in prenovi stanovanj po načelih družbene trajnostnosti. V procese odločanja, načrtovanja, gradnje in vzdrževanja stanovanjskih zazidav uvaja pojem kakovosti stanovanjskih zasnov, ki predstavlja vzpodbudo za oblikovanje novih orodij, namenjenih odločevalcem, politikom, načrtovalcem in uporabnikom.

Bibliography

Acre, F., Wyckmans, A. (2015): Dwelling renovation and spatial quality. The impact of the dwelling renovation on spatial quality determinants. IN: International Journal of Sustainable Built Environment 4/1, p. 12–41.

Bundesamt für Wohnungswesen, Grenchen (2015): Wohnbauten planen, beurteilen und vergleichen: Wohnungs-Bewertungs-System WBS.

COST TU0701: http://www.cost.eu/COST_Actions/tud/TU0701 <April, 2016>.

Čok, G. (2014): Residential Buildings and Sustainable Development in Slovenia= Stambene zgrade i održivi razvoj u Sloveniji. IN: Prostor 22/1(47), p. 134-147.

Dekker, K., de Vos, S., Musterd, S., van Kempen, R. (2011): Residential Satisfaction in Housing Estates in European Cities: A Multi-level Research Approach. IN: Housing Studies, 26/4, p. 479–499.

Eurostat Statistical Books (2015): People in the EU: who we are and how do we live? Publications Office of the European Union, Luxembourg.

Evaluating housing proposals step by step, CABE (2008): Commision for Architecture and the Build Environment, London.

Inženirska zbornica Slovenije – IZS (2013): Smernica za trajnostno gradnjo (Leitfaden Nachhaltiges Bauen).

Jovanovič, J., Grbić, J., Petrović, D. (2012): Prefabricated Construction in Socialist Yugoslavia from 'System' to 'Technology'. IN: Mrduljaš (ed.), M., Kulić (ed.) (2012): UNFINISHED modernisation: between utopia and pragmatism – Croatian Architects' Association, Zagreb.

Mercina, A. (2006): Arhitekt Ilija Arnautovič – socializem v slovenski arhitekturi, Viharnik, Ljubljana.

Nielsen, A. N., Jensen, R. L., Larsen, T. S., Nissen, S. B. (2016): Early stage decision support for sustainable building renovation – A review. ACCEPTED BY: Building and Environment, doi:10.1016/j.buildenv.2016.04.009.

Nograsek, M. (2001): Werturteile im Vergleich an ausgewählten Wohnanlagen in Graz, Doctoral Thesis, Technische Universitaet Graz.

Pirkovič-Kocbek, J. (1982): Izgradnja sodobnega Maribora – mariborska arhitektura in urbanizem med leti 1918 in 1976, Partizanska knjiga, Ljubljana.

Sendi, R. (2001): The Effects of Housing Reform on Housing Quality in Slovenia. Paper presented at the International Research Conference Housing and Urban Developement in Europe, The European Network for Housing Research, Varšava, 25-29 junij 2001.

Sendi, R. (2013): The low housing standards in Slovenia: Low purchasing power as an eternal excuse. In: Urbani izziv, 2013/002, p. 107-124.

Sitar, M., Skalicky, V. (2012): Slovenia: energy efficiency refurbishment measures in regard to the housing quality. V: Di Giulio, Roberto (ur.). Improving the quality of suburban building stock [Vol. 2]. COST Action TU0701. Unife Press, cop. 2012, p. 337-339.

Skalicky, V., Sitar, M. (2011): Vidiki socialne trajnosti v urejanju in prenovi stanovanjskih sosesk. In: Revija za geografijo, 2011 / 6 - 2, p. 133-141.

Šprah, N. (2011): Uporabna vrednost stanovanj – aplikacija švicarskega sistema ocenjevanja uporabne vrednosti na stanovanjih v treh stanovanjskih blokih v Mariboru, seminarska naloga, IPŠPUP FGG, Univerza v Ljubljani .

Rules on the Rental of Non-profit Dwellings. Official Gazzete of the Republic of Slovenia 14 (2004), 34 (2004), 62 2006), 11 (2009), 81 (2011), 47 (2014).

Rules on the Criteria for Assessing the Value of Dwellings and Residential Buildings. Official Gazzete of the Republic of Slovenia 127 (2004), 69 (2005).

Rules on Minimum Technical Conditions for the Construction of Residential Buildings and Dwellings. Official Gazzete of the Republic of Slovenia 1 (2011).

Resolution of the National Housing Programme 2015–2025. Official Gazzete of the Republic of Slovenia 92 (2015).

The Constitution of the Republic of Slovenia. Official Gazzete of the Republic of Slovenia 33 (1991), 42 (1997), 66 (2000), 24 (2003), 69 (2004).

OD ZAČASNEGA K STALNEMU: JAVNO ŽALOVANJE IN ARHITEKTURA PROSTOROV SPOMINA

FROM TEMPORARY TO PERMANENT: PUBLIC MOURNING AND THE ARCHITECTURE OF MEMORIAL SPACES

UKD 725.94
COBISS 1.02
Prejeto 25.08.2016

dr. ir. Sabina Tanović
Department of History, Architecture and Built Environment, Delft University of Technology
tanovic.sabina@gmail.com

Ključne besede
prostor spomina; spomeniki; spontano žalovanje; navezanost; prisvojitev prostora

Key words
memorials; trauma; spontaneous mourning; attachment; appropriation

Izvleček

Kako se soočamo z nedavnimi žalostnimi dogodki?
Kako jih obeležimo v prostoru?

V mnogo primerih po tragičnih dogodkih se javno žalovanje izvaja na mestu tragičnega dogodka. V primeru, da je dogodek nacionalnega pomena, bo na tem mestu postavljeno obeležje.

Manifestacija žalovanja javnost izraža v izgradnji spominskega obeležja in prostora žalovanja. Ob teh, pa obstajajo še začasni, spontani prostori žalovanja, ki so predhodni označevalci spominskih parkov in obeležij spomina. Spontani prostori žalovanja so znak neposredne demokracije. Stalni prostori so formalizirani, podrejeni administrativnemu urejanju prostorskega oblikovanja in v mnogih primerih neustrezno nadomestijo prvotni sporočilni pomen prostora. Prispevek predstavlja kratek pregled izbranih sodobnih obeležij.

Abstract

How do we commemorate recent atrocities? In most cases, in the aftermath of tragic events, public mourning takes place - usually displayed through numerous objects left at the spot. If the event is considered to be of national interest, it is most likely that official plans for building a permanent memorial will take place. Since temporary memorials or so-called grassroots memorials are perceived as a form of democracy in action, they raise a range of critical questions for those commissioning and building permanent official markers for places of tragedy. One premise is that contemporary memorials, among other tasks, offer a space where individuals can make sense of loss and deal with conflicting emotions. In reality, however, most memorials fail to perform this function since the needs of the public collide with their architectural solutions. Through a brief investigation of several contemporary memorials, this paper aims to highlight approaches commissioners and designers adopt in regard to public sentiments and the process of transformation from spontaneous mourning to the built structure.

"Architecture's role is not to create strong foreground figures or feelings, but to establish frames of perception and horizons of understanding."

[Pallasmaa, 2000: 31]

1. Introduction

How to commemorate atrocities is an urgent question that resonates with the recent terrorist attacks in France and Belgium. The public feels the victims should be acknowledged, the perpetrators should be brought to justice, and the world should be united in the interpretation of what exactly happened and who is to blame. To set all this in stone, we call for a memorial of some sort: a place where survivors, victims, and their loved ones can gather together for support and commemoration, and where they might find solace; but also a place to remind society of what happened and how important it is to prevent it from ever happening again. In most cases, after a tragic event happens, public mourning takes place - usually displayed through numerous objects, such as flowers and images, left at the spot. These temporary memorials or so-called grassroots memorials are one of the most common impromptu expressions of grief on sites of trauma and tragedy. The importance of spontaneous memorials in contemporary culture has been widely recognized both in their political dimension and their non-institutionalized character. Their essentially material existence signifies the process of mourning and intimates the relationship with the deceased in the public space. By placing objects or any other kind of signification, people instinctively designate a place as the place for mourning and thereby appropriate the space. In this way, on a symbolic level, people establish a connection with the dead and the place becomes a "spontaneous shrine" [Santino, 2006]. Contrary to official monuments and memorials, spontaneous memorials are, according to art historian Harriet Senie, a form of "democracy in action" [Senie, 1999]. As such, they raise a range of critical questions for those commissioning and building permanent official markers for places of tragedy. It is not uncommon that spontaneous personal gestures collide with official commemorative edifices, which results in removal of the spontaneous shrines within a very short period of time. In other cases, the public mourning is recognized by an official initiative to design a permanent memorial or monument, while public offerings are archived or stored. What to do with all the material that accumulated through public mourning is often a difficult question for the authorities Regardless of the intricate process of creating a memorial structure, there is a pivotal figure in the translation process from sentiment to memorial that can be singled out - the architect or designer. They are usually commissioned by governments or other authorities to produce a structure that satisfies all parties involved. Given the highly specific nature of memorials, the difficulty of representing contested interpretations of traumatic events, and the rarity of such commissions, architects and designers as a rule do not receive much training in the peculiarities of memorial design and, hence, tend to rely more or less heavily on tacit knowledge. They typically have little experience with or knowledge of the psychology of mourning, and often operate under assumptions that deserve closer scrutiny, such as the idea that memorials can assist in the healing process of survivors. Through an analysis of several cases where spontaneous public mourning was transformed into permanent architectural forms, this paper aims to highlight the process of transformation from spontaneous mourning to the built structure by posing a question: to what extent and in what ways is public mourning invited in contemporary memorial designs?

2. Understanding public mourning

Places of tragic events that are transformed through material objects have been labelled as performative commemoratives, since they "display death in the heart of social life" [Santino, 1992]. They represent what cemeteries used to represent before the 19th century, when they were still part of the inner city and therefore of everyday public life. When cemeteries and mourning became more private and intimate, spontaneous memorials emerged as a cultural phenomenon. Some argue that the current practice of spontaneous mourning originated in the 1980's, more precisely with the death of John Lennon. Today, we can witness outbursts of public mourning all over the world: it has become a common practice.

The concept of public mourning echoes a model of action-orientated mourning proposed by clinical psychologists. This model is based on several defined steps that the bereaved has to undertake in order to be able to cope with and adjust to the absence created by a specific physical or psycho-social loss. One of the stages includes 'readjustment to move adaptively into the new world without forgetting the old' [Rando, 2000]. It involves revising the assumptive world,1 developing a new relationship with the deceased, adopting new ways of being in the world, and, finally, forming a new identity. Also, there is a question of reinvestment of the emotional energy that was once invested in the relationship with the deceased. The bereaved need to manage the transition by focusing on other people, objects, pursuits, and so forth. In this fundamental process of transformation, the survivor can be helped in several ways, but the underlying strategy is the recognition of the many challenges the bereaved person has encountered by.

"*...looking beyond the actuality of the loss to another level of loss, one that transcends the literal impact of the missing person and the loss of their part in the life of survivor*"

[Beder, 2005: 258]

In relation to this theory, the importance of materiality, for example the materiality of the body in burial ceremonies, has been underlined time and again. If there is a material point of reference the bereaved are able to visit, then the process of mourning can be performed in a more defined framework. In this way, mourners can receive support and a much needed platform where they can revise the assumptive world. Furthermore, a person dealing with trauma can experience emotions of anger and abandonment, which need to be acknowledged and overcome by the development of new relationships with objects and people. Spatial environments can help in the transition from anger to acceptance.

Hence, from a psychological point of view and concerning the immediacy of their occurrence, spontaneous memorials can be recognized as material objects with a communicative value that help the transition from grief to mourning. Corresponding with a theory on transitional experience widely adopted in children psychology, these objects can be perceived as a transitional medium that direct the bereaved from the abrupt painful feeling toward healing and acceptance [Winnicott, 1982]. In addition, Senie stressed that the flourishing of spontaneous memorials and grieving in public is related to the apparent need of having a private loss publicly acknowledged [Senie, 2003]. They are a relevant factor of social agency or even social change, since they inherently contain protest and indicate other feelings besides grief. Once the spontaneous expression of grief loses its immediacy, the mourning continues, expressed in more or less the same way but with diminished frequency. In a way, it transforms into a ritual similar to that of visiting a graveyard. Obviously, not all public expressions are welcomed, particularly if they result in vandalism or even the demolition of a monument or a memorial. Even though there are cases where designers do invite a more aggressive kind of public interaction, in most memorials these are not welcomed. For example, the Memorial to the Murdered Jews of Europe in Berlin, the official German Holocaust memorial, provoked contentious debates about the anti-graffiti solutions applied on its surface. Here interaction with the public is encouraged on a physical level, but even this has proven to be problematic as the site turns into a popular playground.

3. The memorial as a space in need of appropriation

The commonly accepted assumption, reinforced by two extensively commemorated world wars and to some extent confirmed by academic research, is that a memorial is capable of serving many purposes. Its mere existence is thought to be able to help victims and survivors cope. It re-establishes normality: even those who are under serious threat are in need of erecting a commemorative structure. It creates a material framework that is expected to positively influence the processes of mourning and healing. A memorial is thought to aid in constructing or reaffirming individual and collective identities. It serves to educate the general public and offers information and insight that might forestall future atrocities. Finally, its presence within a society offers a point of reference, a political platform from which to address relevant issues related to the traumatic event.

Once built, however, a memorial often does not live up to the expectations. The victims and survivors might not identify with the result, it attracts vandals, it causes social controversy and polarizes potentially disruptive debates, or it is hijacked by various parties to serve political objectives. Even though contemporary memorials aim to be objective and to avoid favouring one version of events over others, a number of problems arise as a result of the inherently political nature of the memorial. The significant proliferation of memorials and memorial museums after 1985 is also indicative of the importance assigned to the spaces of commemoration in contemporary society, in which memories are mediated through global networks of communication.

Slika 1: 11M obeležje, postaja Atocha, Madrid (2007), FAM Arquictetura y Urbanismo SLP. Podzemni prostor v katerem so sporočila nastala ob spontanem žalovanju. Sporočila so vtisnjena v notranjosti stolpa.
Figure 1: 11M memorial, Atocha station, Madrid (2007), FAM Arquictetura y Urbanismo SLP, Architects.Underground space with the messages from spontaneous mourning inscribed in the inner body of the cylinder (photograph by the Author).

Slika 2: 11M obeležje, postaja Atocha, Madrid (2007), FAM Arquictetura y Urbanismo SLP. Vidna sporočila in človeško merilo.
Figure 2: 11M memorial, Atocha station, Madrid (2007), FAM Arquictetura y Urbanismo SLP, Architects (photograph by the Author).

Having all this in mind, public mourning is yet another aspect the makers of contemporary memorials have to take into account. One premise is that contemporary design concepts dealing with loss and grief should aim to create a space for specific collective and private rituals of mourning. Hence a memorial becomes a transitional environment, a holding space that is expected to create a safe realm for individuals who need to make sense of loss and deal with conflicting emotions. In reality, however, most memorials fail to perform this function, as is the case with the 11M memorial at Atocha station in Madrid. The extensive outburst of public mourning that occurred after the 2004 terror attacks on Madrid overtook the space of Atocha station. As the collection of candles, dried flowers, messages and other objects started to become an obstacle, in June 2004 "cybershrines" known as Espacios de Palabras were installed at the entrances of Atocha and El Pozo stations, so that people could leave messages of condolence in an electronic form until a permanent memorial was built. These 'video walls' attracted a wide audience of people interested in leaving messages of condolence, and were therefore recognized as powerful instruments of living memory, whose meaning was shared and instantly understood. Following the installation of these temporary shrines, many argued that the new permanent memorials might never achieve the same effect in engaging the public.[2] Within three years from the attacks a memorial was inaugurated, and all the public offerings were collected and archived.[3] In a two-partite composition, an underground space and a street-level marker, the memorial aims to offer a secluded realm for contemplation and at the same time tries to prominently mark the place. Some of the text notes that were found among the objects of public mourning are inscribed on the ETF foil[4] that constitutes part of the memorial.

Positing new objects, on the other hand, is not possible, since the underground space is guarded and kept free from any additional objects. Meanwhile the upper part remains difficult to reach due to the heavy traffic circling the memorial. Nevertheless, there are still flowers and other offerings to be seen at the base of the prominent cylindrical form in the middle of the roundabout. Hence, the public continues to leave objects even after this possibility was excluded from the design.

The Vietnam Veterans Memorial in Washington D.C. deals with the subject in quite a different way. A common scene at the memorial is that of people tracing names with a piece of paper, caressing the surface of the reflective granite walls in order to touch the names, leaving flowers and other objects. This is also true for many First World War memorials, where one can often see a poppy attached to a particular name, at least the ones visitors are able to reach. The same can be observed at memorial sites of the Second World War, where small piles of stones, flowers and objects are always to be found. The matter of appropriation comes prominently to the fore in these places: clearly people need to feel invited to interact with the space. The sensory features of the Vietnam Veterans Memorial, for example, provide the Vietnam Veterans with the necessary environment for facilitating the process of mourning through the presentation, confrontation and recognition of losses [Watkins, Cole and Weidemann, 2010: 364]. In situations where a memorial is not existent or it is in the process of making, it is not rare that people gather in a nearby space or a building, as was the case with the mourning over 9/11 in New York. At times, even existing monuments or memorials that are unrelated to the event are appropriated by the public, as happened with a 1987 monument on the Place de l'Alma in Paris that is used as an informal memorial to Princess Diana who died in a traffic accident in 1997.[5] In view of these facts, it is apparent that memorial spaces have a significant role in public mourning. How public mourning is accommodated in memorial spaces, on the other hand, is a topic that has not been addressed much, and particularly not in the discipline of architecture.

4. Inviting or censoring the public opinion?

The question of public freedom is inevitably, and ironically, a difficult one in regard to public architecture, since the level of publicity varies depending on the function. In the case of public memorials, communication with the public supposes a straightforward relationship: memorials are buildings for memories and commemorations. Of course, in reality the issue is highly problematized and particularly so in official monuments and memorials. With regard to the issue of a memorial space doubling as a public space, however, a question could be raised about how public a memorial space actually is, or, rather, what kind of public realm it is in the first place. This is particularly true regarding the tension that often rises between the program of demands defined by official bodies and the expectations of the public. The Memorial to the Murdered Jews of Europe in Berlin is a good example of the turmoil a public memorial project can induce, leading to a cancelled competition, severe opposition and continuous adjustments of the chosen design.

Slika 3: Replika plamenice s spomenika Svobode (NY, ZDA). Pariz, Place de' l'Alma. Obeležje spominja na tragično smrt Princese Diane (1997).
Figure 3: A replica of the torch held by the Statue of Liberty, Place de' l'Alma, Paris (1987) appropriated as a memorial to Princess Diana who died in a traffic accident in 1997 (photograph by the Author).

Another well-known example is the commemoration of the terrorist attacks that happened on September 11th 2001 in New York. Here the ambition to effectively transmit the traumatic memory and the need to console the survivors of the event delivered an equally long and contested debate. The aftermath of the attacks saw the public display remarkable actions of spontaneous mourning. At the same time, a public discussion on the most appropriate ways to commemorate the victims was developing towards two distinct positions: rebuilding the site or leaving it empty. Unsurprisingly, many architects advocated for building new structures on the ashes of the old, while other voices urged for an immaterial – i.e. made of light – "phantom building" [Rosenblum, 2001]. A version of this idea became reality only six months after the attack. In an annual commemoration of the victims, an installation called "Tribute in Light", consisting of vertical columns of light, was installed at the base of the demolished Twin Towers. The practice continues to this day, even after the official memorial wasinaugurated. In contrast to the fast resolution about the installation, the creation of a permanent memorial took a decade before it was opened to the public. The process involved several parties, was transparent and, to a certain extent, the public was invited to participate. This was demonstrated, for example, in the decisions made on how to inscribe the names of the victims into the memorial. The arrangement of the names was initially planned in alphabetical order, with insignia next to some names, for example the symbol of a fire department accompanying a member of a fire brigade. The public protested, arguing that it created a sense of hierarchy among the victims, and that it would disconnect the names of family members as well. Ultimately, the designers, Michael Arad and landscape architect Peter Walker, recognized the importance of public opinion. In the end, they also argued that finding a suitable solution was most rewarding since the memorial, as it is now, "brings individual human stories into an arrangement" [Arad, 2013]. The very choice of the final design, however, was in the hands of a professional jury. Here, the greatest dilemmas concerned the character of the memorial itself. For example, in its final deliberations the competition jury dismissed proposals that focused on consoling memorialization by emphasizing the beauty and sacredness of the space. Instead, they looked for a design that would represent an equilibrium between encouraging redemption and demonstrating the destruction, such as the winning design entitled "Reflecting Absence".[6]

Arguing that the memorial needed to do two things, commemorate the event and act as an active public space, the designers of the chosen project stressed that the memorial should be used as a place for work and play. They also pointed out that there is no safe solution since public spaces are resilient, and that there is no certainty that a public memorial can be used only for "good purposes":

> "*We have to be optimists and hope that people will use public space in a way that is affirmative and not destructive, but you would be naive to think that it can't be co-opted and used in a way that will injure other people. It would show more than a little hubris on the part of any designer to say, I've designed a space that can only be used for good. But to deny public space altogether would be repressive "[Arad, 2013].*

Slika 4: Konceptna prostorska rešitev za spomenik 22. julij. Utoya (2012), Jonas Dahlberg.
Figure 4: Concept design for 22. July memorial, Utoya (2012), Jonas Dahlberg (credits Jonas Dahlberg Studio).

After numerous adjustments of the original proposal, including elevating the plaques with victims' names from the underground to street level, the memorial eventually became a fountain inserted in the remaining footprints of the demolished Twin Towers. The memorial is surrounded with a carefully organized public park and a recently opened memorial museum next to it. Nearly 3000 names are inscribed into thick bronze parapets of the fountains. The names are arranged in groups, depending on the location where the victims were at the day of the attack. Next to this, the names are positioned according to the "meaningful adjacency requests" whereby relatives and colleagues could ask for particular individual names to be inscribed next to each other, depending with whom they were at the time of the attack. This kind of direct participation in crucial decisions about how the memorial space is going to perform some of its functions is in most cases not offered to the general public and, often, not even to the survivors. Norway's July 22 memorial sites, with their memorials in progress, testify to this. In the winning design proposal for the 2014 competition for Utoya island, Swedish artist Jonas Dahlberg envisioned a physical incision, a symbolical wound, into the Sorbraten peninsula which faces Utoya.

The literal cut into the landscape, with the names of the victims to be engraved on the flat vertical stone surface, was welcomed by the committee as radical, brave and relevant in the process of remembering. It only seems that the aspect of interaction with the public, such as in the Vietnam Veterans memorial that manifested in the possibility to touch the names, is taken away: a wide gap will be dividing the wall with names and the viewing gallery. The artist argued that accentuating rupture and interruption will bring visitors to a state of reflection in order to establish their own private ways of seeing and remembering [Dahlberg, 2012].

The realization of the memorial, however, has been postponed due to the opposition of Utoya locals who perceive the proposed design as intrusive. In the meantime, a subtler and nature-friendly approach that strongly involves aspects of 'healing' has come to fore: the memorial newly installed at Utoya by architectural team 3RW entitled 'Lysningen – The Clearing'. Even though the name suggests similar notions of a void and absence as signifiers of traumatic memory, as employed in Dahlberg's concept, the memorial was designed to change as a structure subordinate to nature and the passing of time. The aspect of mutability through natural processes is reinforced by a careful selection of vegetation, but more importantly by the deliberate choice of a location without site-specific history. As the designers explained:

> "*We might talk about the memorial as a kind of void to be filled with the individual's needs to process grief, remember the lives that were lost and detach themselves from the drama that took place elsewhere on the island*" *[3RW architects, 2015]*.

5. Involving the public in the construction process

A 1978 competition for a commemoration of the Second World War destruction in Lüdenhausen, Germany, yielded a proposal that involved citizens as both designers and owners of the design. The project, entitled "Pro Memoria Garden" and designed by the Argentinian architect Emilio Ambasz, was devised as a labyrinthine garden with individually assigned gardening plots that needed to be nourished and cared for by the plot owners. In this way, the active participation would, the designer believed, symbolically keep the memory alive. Each plot would be assigned to a newborn and demarcated with a marble slab inscribed with that person's name.

The proposed concept was that a person would own the assigned garden from the age of five until death, when the plot would be given to a new owner with a new marble slab placed next to the previous one. The architect hoped that from divided plots the labyrinth would grow into a common community garden and that interacting in this way, the garden as a memorial in the making would teach people about the respect and value of life, as he argued: "Children are taught the rudiments of gardening to prepare for a lifetime of responsible cultivation" [Ambasz, 1978].

The tendency toward involving the public not only as viewers but also as active participants in creating a memorial seems to become more prominent in contemporary projects. For example, the so called "Field of Crosses" - Monument to Kornati Firefighters (2010) on the Island of Kornat in Croatia, was almost entirely realized by volunteers. The memorial, consisting of twelve dry-wall crosses of megalithic dimensions accompanied with a circular 'chapel', were put in place by nearly 3000 participants.7 The amount of participants in the construction of the memorial was recognized as both collective and individual witnessing. Throughout the process, described by the designer as "cathartic atonement" [Bašić, 2010], participants were learning about the event and, in some instances, ways to overcome the trauma.

This practice is widely used in projects by German artist Jochen Gerz, best known for his Monument Against Fascism in Harburg-Hamburg (1986-1996) and The Square of the Invisible Monument (also known as 2146 Stones-Memorial against Racism, 1993) in Saarbrücken. Gerz's recent project.

The Square of the European Promise, continues this approach and takes participation as a key element in memorial design.[8] Negatively surprised by the 1931 "Heroes Memorial Hall" in the Christ Church in Bochum, where a memorial mosaic accusingly depicts the names of enemy states opposite of the names of local First World War victims, the artist invited citizens to let their names be engraved on memorial plaques that will be added to this odd memorial. In the process, each individual that signed up to have their name included in the memorial, had to make a "promise" to Europe that remains private, hence invisible for the public - in line with Gerz's earlier projects. In addition, the act of adding names to the existing memorial plaques indirectly refers to the post-war commemoration of the Second World War, when names of the dead were often added to existing memorials of the First World War. The fact that the new list consists of names that belong to living individuals creates new meaning and creates a platform for current issues.

6. Discussion

In Atocha, the memorial was a response to the immediate post-traumatic period and can therefore be recognized as a spontaneous act of mourning since the designers felt personally affected by the attack. By extending the official program of demands that initially only called for a public memorial on the street-level, designers opted for a spiritual realm where people could contemplate the loss. Even though some of the messages of public mourning were used in the design of the memorial, the public and public mourning were excluded from the design process.

The result was an architecturally inspiring peace of work, but highly contentious in terms of its functioning and meaning. In fact, the project seems to become a victim of its own architectural supremacy since the unfulfilled demands for high maintenance caused the memorial's deterioration. Perhaps more importantly, the memorial obstructed the appropriation of the space by the public which became difficult – if not impossible. In the case of the 9/11 memorial, on the other hand, public sentiment was included in the decision-making when some of the crucial elements of the memorial were resolved, namely the inscription of the victims' names. The origin of the project was similar to that of the 11M memorial, since outbursts of spontaneous mourning after the attacks inspired many to think about permanent ways to commemorate the victims.

The designer Michael Arad was equally touched by the coming together of people in the public space after the attacks, which led him to think about the importance of public memorial space in society. Unlike the construction process of the 11M memorial, building the 9/11 memorial was much less straightforward and involved numerous alterations of the original proposal. Even though it is a highly controlled public space, the very process of its making confirms how relevant the role of the architect is, as the mediator between public opinion and official bodies.

Due to the transparent approach and highly public character of the process, the creation of The National 9/11 Memorial and Museum was an illustration of contemporary debates surrounding work of memorialization, in which the question of architecture in the service of memory faces multilayered issues. One of the most prominent issues during this process centered on the role of architecture as an embodiment of what society prefers in terms of a memorial's morphology. This was certainly not the case with the approach taken in the creation of memorials for July 22 memorials in Norway.

Public mourning is a delicate issue and, in most cases, difficult to manage for official institutions, particularly in cases of immediate spontaneous mourning manifesting itself in enormous quantities of material. In Madrid, these offerings were archived and documented in projects preceding the official memorial. Once the 11M was built, however, public mourning was in large part restricted. Conversely, at the Vietnam Veterans Memorial, visitors continue to leave objects that are collected on a daily basis and added to the growing collection.

In this way, the memorial stays true to its reputation of a "healing" structure, by reaffirming the importance of public mourning as an ongoing phenomenon. In contrast, the 11M did recognize the public sentiment, but chose to ossify it instead.

Keeping in mind that public mourning is a continuous process, as underlined by our knowledge of psychology, it is essential that architecture provides space for spontaneous expressions of grief. A memorial that fulfills its purpose as a public space is a memorial that is appropriated by its users. Even though it inevitably becomes an emotional realm, it needs to allow for this to happen on both an informal and an institutional level.

Regarding current issues in architectural practice that question the architect's role in society, examples of memorial projects that embrace a participatory approach and involve the public in the decision-making or the construction process, seem to carry seeds of actual change. This approach also resonates with the idea that architecture's role is related to establishing "frames of perception and horizons of understanding", as quoted in the beginning of this paper. For example, if the accusatory First World War memorial in Bochum anticipated the destruction that swiped Europe in the Second World War, and as such has taught us a lesson (as commemorative edifices are expected to do), countering this approach is a demonstration of progress. What kind of prophetic message rests in Gerz's publicly made public memorial is yet to be seen, but for now it represents a valuable example of a design intervention that is both a reflection of public sentiment and a reaction to the architectural focus on form. In order to create meaningful spaces, designers of contemporary memorials need to look more closely to the process of mourning and towards the needs of the bereaved. In this view, memorial spaces should aim to reaffirm the power of design to elucidate collective emotion in a democracy.

Bibliography

3RW architects (2015): 3RW Wins the competition to design memorial on Utoya, Official website; http://3rw.no/3rw-wins-the-competition-to-propose-memorial-on-utoya/

Abend, L. and P. Geoff (2004): Spain's path to 3/11 memorial, The Christian Science Monitor; www.csmonitor.com/2004/0714/p07s01-woeu.html/(page)/2 <July 14, 2004>

Ambasz, E. (1978): Pro-Memoria Garden, Official website Emilio Ambasz & Associates. Inc; http://emilioambaszandassociates.com/portfolio/Pro-Memoria-Garden.

Arad, M. quoted in: H. Shapira, 'Reflecting Absence: An Interview with Michael Arad', Public Books www.publicbooks.org/interviews/reflecting-absence-an-interview-with-michael-arad <August 30, 2013>

Bašić, N. (2010): A Monument to Kornati Firefighters in: Pogledaj.to; http://pogledaj.to/drugestvari/nikola-basic-a-monument-to-kornati-firefighters/, <November 27, 2010>

Beder, J. (2004/2005): 'Loss of the Assumptive World – How we Deal with Death and Loss', OMEGA, Vol. 50(4), pp. 255-265.

Dahlberg, J. (2012): July 22 Memorial Sites – winning entry, Public Art Norway – KORO http://publicartnorway.org/content/uploads/2016/03/Jonas-Dahlberg_ENG.pdf, <February, 2012>

Gerz J. (2007): 49th City Talks: Square of the European Promise - A speech by Jochen Gerz in Bochum Museum of Art http://europeanpromise.eu/chronology/49th-city-talks/ <January 17, 2007>

Santino, J. (1992): Not an Unimportant Failure: Rituals of Death and Politics in Northern Ireland, in: M. McCaughan, ed., Displayed in Mortal Light Northern Ireland: Antrim Arts Council, n.p.

Santino, J. ed. (2006): Spontaneous Shrines and the Public Memorialization of Death, Palgrave Macmillan.

Pallasmaa J. (2012): J. Pallasmaa and P. MacKeith, Encounters 1: Architectural Essays, Rakkenustieto.

Rando, T. A. (2000): On the experience of traumatic stress in anticipatory and post-death mourning, in: T. A. Rando, ed., Clinical Dimensions of Anticipatory Mourning: Theory and Practice in Working with the Dying, Their Loved Ones, and Their Caregivers, Champaign, IL: Research Press, pp. 155-221.

Rosenblum, R. (2001): quoted in D. Solomon, Art/Architecture; From the Rubble, Ideas for Rebirth, The New York Times www.nytimes.com/2001/09/30/arts/art-architecture-from-the-rubble-ideas-for-rebirth.html <(30th September, 2001>

Sánchez-Carretero, C., A. Cea, P. Díaz-Mas, Pilar Martínez and C. Ortiz (2011): On Blurred Borders and Interdisciplinary Research Teams: The Case of the "Archive of Mourning", Forum: Qualitative Research Sozialforschung, Vol. 12, 3, www.qualitative-research.net/index.php/fqs/article/view/1737/3237 <30th September, 2001>

Senie, H. F. (1999): Mourning in Protest: Spontaneous Memorials and the Sacralization of Public Space, Harvard Design Magazine: Constructions of Memory, 9 (Fall 1999), pp. 23-27.

Senie, H. F. (2003): A Difference in Kind: Spontaneous memorials after 9/11, International Sculpture Center, www.sculpture.org/documents/scmag03/jul_aug03/webspecial/senie.shtml.

Young, J. E. (2006): The Stages of Memory at Ground Zero, in: O. B. Stier and J. Shawn Landres, eds., Religion, Violence, Memory, and Place, Indiana University Press, pp. 214-235.

Winnicott, D. W. (1982): Transitional Objects and Transitional Phenomena [1951], in: D. W. Winnicott, Playing and Reality, Routledge; New Edition, pp. 1-34.

Watkins, N., F. Cole and S. Weidemann (2010): The War Memorial as Healing Environment: The Psychological Effect of the Vietnam Veterans Memorial on Vietnam War Combat Veterans' Posttraumatic Stress Disorder Symptoms, Environment and Behavior, Vol. 42, No. 3, pp. 351-375.

KAJ SPROŽA PREOBRAZBE KREATIVNIH UMETNIŠKIH PRAKS IN KAJ VODI NJIHOVO DELOVANJE V JAVNOSTI?

TRANSFORMATIVE TRIGGERS AND PUBLIC BEHAVIOURS OF CREATIVE PRACTICES

UKD 7.011
COBISS 1.03
Prejeto 1.02.2016

izr. prof. dr. Tadeja Zupančič
Univerza v Ljubljani, Fakulteta za arhitekturo
Zoisova 12, 1000 Ljubljana
tadeja.zupancic@fa.uni-lj.si

dr. Eli Hatleskog, Experienced Researcher, ADAPT-r (2015)
Univerza v Ljubljani, Fakulteta za arhitekturo
Zoisova 12, 1000 Ljubljana
eli.hatleskog@fa.uni-lj.si

Ključne besede
Raziskovanje prakse; raziskovanje skozi oblikovanje

Key words
Practice research; research through design

Izvleček

V letu 2015 je Fakulteta za arhitekturo Univerze v Ljubljani gostila tri gostujoče raziskovalce evropskega ITN projekta ADAPT-r, v 7. Okvirnem programu. Pričujoči članek povzema prispevek fakultete k projektu v tem obdobju, s posebnim poudarkom na analizi intervjujev z osemnajstimi doktorskimi študenti oz. z njihovimi mentorji. Na podlagi omenjenih intervjujev so pripravljena tudi raziskovalna projektna poročila o novih spoznanjih in metodah 'sprožilcev preobrazb' ('Transformative Triggers') in 'javnega delovanja' ('Public Behaviours') kreativnih umetniških praks. Najina aktivna vloga v javnem ritualu ADAPT-r raziskovalne mreže nama omogoča prepoznavanje posamičnih in kolektivnih raziskovalnih tradicij. Tako je mogoče prepoznati tudi izvor afinitet hibridne raziskovalne tradicije Fakultete za arhitekturo Univerze v Ljubljan s tem in z drugimi raziskovalnimi konteksti, s tokovi raziskovalnih vplivov in s sprožilci preobrazb raziskovalne tradicije.

Abstract

For the past twelve months, the University of Ljubljana, Faculty of Architecture has been host to three ADAPT-r fellows and actively contributed to ADAPT-r ITN/7th FP. This paper will give a summary of some of the contributions that the faculty has made over the past year, with particular emphasis upon the analysis of interviews that were conducted with eighteen doctoral creative practice researchers and their supervisors. These interviews provided the source material for four EU reports and sought to explicate knowledge relating to the methods and intentions of creative practice research with regard to 'Transformative Triggers' and 'Public Behaviours' in research. Being an active part of the ADAPT-r public behaviour rituals has enabled us to reflect upon our individual and collective research traditions. It has helped us to identify the resonance of the hybrid tradition of the University of Ljubljana, Faculty of Architecture, within this and other creative practice research contexts, the flows of research influences and the triggers of its transformations.

1. Introduction

Over the past fifty-five years, the Faculty of Architecture (former: School of Architecture and Department of Architecture) at the University of Ljubljana has been pursuing 'Practice Based Research' and 'Research by Design' as PhD research approaches, which are integrated and contextualized with others in a hybrid, integrative way, by doctoral candidates (Zupančič, 2009). Following accreditation of Research by Design as one of the key potential focuses since 2009, the university has become an active partner within he ADAPT-r ITN project - Architecture, Design and Art Practice Training-research (ADAPT-r, 2015; Verbeke, Zupančič, 2014). For the past twelve months, the faculty has been host to one 'Experienced Researcher' (Eli Katrine Hatleskog) and two 'Early Stage Researchers' (Birgitte Juul Nielsen & Federico del Vecchio), with another joining the university next year (Karli Luik). This paper will give a summary of some of the contributions that these research fellows have made in collaboration with Tadeja Zupančič and the Faculty of Architecture.

The ADAPT-r network sees collaboration between seven schools of architecture across Europe: Aarhus School of Architecture, Denmark; Estonian Academy of Arts, Estonia; Glasgow School of Art and University of Westminster, UK; KU Leuven, Belgium; RMIT Europe, Spain and the University of Ljubljana, Slovenia. ADAPT-r – Architecture, Design and Art Practice Training-research – aims to develop new knowledge and understanding of Creative Practice Research (CPR) through the network. The key sources of this networked knowledge development are 33 Early Stage Researchers (ESRs), who are all creative practitioners and PhD researchers. Among the key meta-level-knowledge developers are seven Experienced Researchers (ERs). The seven institutional partners collaborating on ADAPT-r each offer their own specific research traditions, which are, in turn, adapted to implement the ADAPT-r project. Meta-level understanding is thus emerging from the interactions, exchanges and conflicts that occur between the project/research training/PhD model developers, supervisors, examiners, panellists, ESRs, ERs and many others, linked to the process.

Understandings of design thinking, Transformative Triggers, Public Behaviours as well as the emergence of new methods oriented towards the explication of tacit knowledge, are developed collectively, representing an innovative, but not an isolated example of relational knowledge development.

The research discussed in this paper relates to ADAPT-r's work-package 1, 'Primary Research'. This work package follows the logic of the referential focuses of creative practice research training: 1.1 Case Studies, 1.2 Community of Practice, 1.3 Transformative Triggers, 1.4 Public Behaviours, 1.5 Explicating Tacit Knowledge and 1.6 Explication of Methods.

Over the last year, the University of Ljubljana has been working in close collaboration with Aarhus School of Architecture, Denmark, investigating themes, concepts and intentions relating to: '1.3: Transformative Triggers' and '1.4: Public Behaviours'. This has been done with a particular emphasis in Ljubljana on Public Behaviours. The resultant reports produced through this process, for distribution to the EU, thus represent an important milestone.

Slika 1: Dneva projekta ADAPT-r v Ljubljani, 11-12 junij 2015: Stadium sprehod z Gitte Juul in z ljubljanskimi študenti arhitekture.
Figure 1: ADAPT-r Days, Ljubljana 11-12 June 2015: Stadium Walk with Gitte Juul and the students of architecture from Ljubljana.

After the creative practitioners have already investigated the drivers and motivations of their venturous practices as case studies, and after they identified their communities of practice (they contextualized their case studies), they are able to think about what shifts and transforms their creative practice and how do they relate to their social contexts (they can focus their thinking on the relevance potential of their work). The work-packages cannot be taken as research steps literally, as creative practice research is far from a linear process. When creative practitioners discuss their relations to communities of practice, they expand the previous understanding of those communities, they may identify others, they are not only thinking about their communities of practice but also about their communities of relevance. They also begin to understand where and how specific individuals and the communities trigger their creative thinking and public behaviours. The last methodological set (1.5: 1.6) is thus not an isolated act; it enhances the explication process from all the previous endeavours.

The following two definitions give a broader understanding of the scope of the research that the University of Ljubljana has been conducting in collaboration with the Aarhus School of Architecture:

2. Transformative Triggers (TTs):

The detection, observation and analysis of triggers, shifts and transformations practitioners understand in their practice.

Slika 2: Sestavni deli krajine po Pitte-ju, 1992 [Vir: Marta Bujanda].
Figure 2: Components of the landscape according to Pitte, 1992 [Source: Marta Bujanda].

Transformative triggers relate to specific moments in creative practice research, which result in changes in direction, approach and/or understanding. These triggers are particular to the individual practitioners and highly personal. They can be described more practically as shifts in practice. Transformative triggers can be understood with regard to design practice as triggers to change. Design is basically the will to change the current situation into a preferable one, that change is transformation. What triggers the design/change can be described as the transformative trigger and the change itself, as designed and experienced, the transformative experience and may result in artefacts, exhibitions or events. Transformative Triggers, are by no means simple or obvious, but relate quite personally to the practitioners' stance, intention and attitude. As such, there is no single definition.

3. Public Behaviours (PBs)

The engagement with different means of exhibition, writing, review, entry into competitions and awards, and participation in or establishment of institutions.

Public behaviours give context and specificity to everything you do in practice. They demonstrate you engage with the world through your practice. With this in mind, we see our task, as experienced researchers, is to zoom in at these points of transformation and engagement, with a view to developing an understanding of the relational knowledge developed in these moments. Public behaviours are understood, in the developing language of the ADAPT-r PhD by Practice, as moves by which a practitioner can define a stance, or attitude, in relation to: the profession, practice, policymakers, clients (potential and existing), the public and society at large. They position practice in relation to these various 'publics'. . As such, they pertain to context, or more precisely the contextualisation of practice and may be seen to relate directly to who with and how the practitioner chooses to engage. The concept of Public Behaviours took primary inspiration from Randall Collins' 1988 book, 'The Sociology of Philosophies', where Collins suggests that the history of ideas is the history of social structure,

or networks of people who exert, 'emotional energy and cultural capital' through chains of human interactions and contact. The principal motivator of intellectual activity is conflict among those who form the networks, and the greatest concentration of creativity's emotional energy is found in face-to-face relationships at the centre of networks.

The reports for both Transformative Triggers and Public behaviours were prepared in two volumes. These covered: Firstly, examples from researcher/practitioners, which were collected through mediated group interviews that were staged with eighteen doctoral researcher/practitioners and supervisors and collated into multi-layered edited transcripts, which combined images and text. These booklets were then analysed with regard to the themes of Transformative Triggers and Public Behaviours. And secondly, meta-reflection and critical analysis of both the interviews and broader research contexts. These reports sought to ground and position the research theoretically, institutionally and in relation to other diverse activities relating to research by design across Europe.

The materials were prepared by Eli Hatleskog, the ADAPT-r Experienced Researcher at the University of Ljubljana, and Anna Holder, the ADAPT-r Experienced Researcher at the Aarhus School of Architecture. Both have completed their own PhD in a way that allows them a deeper understanding of the research training discussed. Eli finished her research training in Norway (NTNU), Anna in UK (Sheffield School of Architecture). During their creative meta-level investigation they developed a relational method to capture knowledge on both TTs and PBs. They decided to use workshops and developed interactional interviews with sensitively selected pairs of creative practitioners, as well as some supervisory couples. The relational-type of knowledge from the process of tacit knowledge explication is thus enhanced through the relational-type of research method. Resonance in creative thinking, or in contextual framework, is perhaps the keyword in their interview management. The resonance - in other words: a certain level of familiarity, a balance of closeness and distance that motivates interaction and creative action/knowledge creation. In short: sharing something. This balance seeking is not only present within the interviews presented, but also in all other processes of communities of relevance investigation.

Eli and Anna organized and edited the transcriptions of 9 pairs of interviews. Firstly, two supervisory couples: Kate Heron from the University of Westminster and Leon van Schaik, the creative practice based PhD model initiator at RMIT; Richard Blythe (RMIT), the conceptual 'force' of the ADAPT-r project and Veronika Valk (Estonian Academy of Art), his former PhD candidate (completed within the RMIT model). Karin Helms and Tom Holbrook, Colm More and Alice Casey, Jo Van Den Berghe and Arnaud Hendrickx, Cian Deegan and Steve Larkin, Marti Franch Batllori and Sebastien Penfornis, are all RMIT candidates or PhD holders but based at different ADAPT-r partner hosts. They share the closeness within the RMIT PhD model itself. Jo and Arnaud are specific in this group – their creative practice research contextualization within the theoretical mode of knowledge is stronger than in other cases. Siv Helene Stangeland (based at/registered at the Aarhus School of Architecture and Sam Kebbell (hosted by the University of Westminster/PhD programme at RMIT), Petra Marguc and Eric Guilbert (both hosted by/PhD involved at KU Leuven); these couples share the resonance with the model deriving from other cultural contexts and research traditions and demonstrate the openness of the model itself.

The compilation and analysis of combined behaviours (report) starts with the general investigation of the reasons behind public behaviours and addresses some of the issues of relevance. It discusses creativity and knowledge types. It continues with a rough definition of public behaviours and modes of behaviour ('knowing in action' and its varieties). further social contextualisations. Then it shifts to the ADAPT-r partnership level and its contextualization. The question is, what partners bring to and take from the partnership, why they feel the resonance with others etc. (what they share and how)?

The backbone of this discussion is the RMIT view as the main tradition reference. Other views and research traditions are waiting for future projects and other developments to be fully investigated. Some of them have already been described on occasion/ within other frameworks. These other creative practice research and joint PhD networks are also listed in this report in order to contextualize the ADAPT-r network itself.

The core of the meta-level investigation is the interpretation of the interview results through descriptions of instances of public behaviour. This part is introduced by an explanation of Eli and Anna's starting positions, and their own ADAPT-r specific process for the methodological development. As these issues are not the first addressed in this PhD model, the question is how to identify the PBs relevant issues regardless to the PhD stage.

Eli and Anna tested their method with those already having a critical distance on their own creative practice based PhD process and/or working as experienced supervisors within the framework. The next step was to adapt the method for people from earlier stages of their PhD development. The instances of public behaviours and their contextualization include but are not limited to: where creative practitioners seek recognition and how, how they use language and what remains unspoken (and why), what are the regional variations, what is the relation between individual and collective, what is the role of critical judgement, what is the role of the Practice Research Symposium (PRS) as a public behaviour ritual within the ADAPT-r project, what is the relation of different roles within creative practice research (practitioner / researcher / teacher etc.), the difference between saying and doing, the transformative nature of the PhD process in the relation to public behaviours, some ethical issues and further social contextualisations. The majority of the results are focused on public behaviours within the communities of practice. There are also some instances described that lead to the refreshed understandings of communities of creative practice research relevance. Further research contextualisaton, oriented into a deeper understanding of the motivations behind the PB instances, and the methodological development of creative practice research relevance seeking is probably the next step of investigations into PBs.

A conscious reflection on public behaviours by a creative practitioner is means to position himself or herself in his/her communities of practice/ relevance. A conscious development of the meta-level understanding of relational knowledge development by communities of creative practice research means to position (and/ or reposition) themselves in their research context. Though the research investigation itself takes us from our comfort zones, the act of (re-) positioning ourselves can bring us some critical self-confidence, needed to identify the critical moments in our creative practices, when we need to trigger ourselves and/or others to move forward, towards a higher level of maturity in our creative actions.

Being an active part of the ADAPT-r public behaviour rituals and their investigations enables us to explicate our individual and collective research tradition better than before the ADAPT-r project preparations and implementation. It helps us to identify the resonance of the hybrid tradition of the University of Ljubljana, Faculty of Architecture, within this and other creative practice research contexts, the flows of research influences and the triggers of its transformations. On the other hand the observation of the creative practice research activities within the project enhances our awareness and reinsures our conviction about the importance of creative practice research contextualisation not only within the experiential and relational knowledge of other creative practice researchers but also within a wider knowledge-base of theoretical inquiries. We believe the findings explained in this report are relevant for many (levels of) creative practice research contexts.

4. Acknowledgements

The research leading to these results has received funding from the People Programme (Marie Curie Actions) of the European Union's Seventh Framework Programme (FP7/2007-2013) under REA grant agreement n° 317325.

Bibliography

ADAPT-r : http://adapt-r.eu, <December, 2015 >

Collins, R. (1998): The sociology of philosophies, a global theory of intellectual change. Thousand Oaks: Sage Periodicals Press.

Hatleskog, E. (2015): Public Behaviours: Work Package 1.4 Deliverable 8: Compilation and analysis of combined behaviours (report), ADAPT-r ITN, EU Reporting.

Hatleskog, E., Holder, A. (2015): Public Behaviours: Work Package 1.4 - Deliverable 7: 18 Individual Accounts of Public Behaviours, ADAPT-r ITN, EU Reporting.

Hatleskog, E., Holder, A. (2015): Transformative Triggers: Work Package 1.3 - Deliverable 5: 18 Individual Accounts of Transformative Triggers, ADAPT-r ITN, EU Reporting.

Holder, A. (2015): Transformative Triggers: Work Package 1.3 Deliverable 6: Compilation and analysis of combined triggers (report), ADAPT-r ITN, EU Reporting.

Verbeke, J., Zupančič, T. (2014): Adapting to and adapted by ADAPT-r = Prilagajanje projektu in prilagajanje projekta ADAPT-r : architecture, design and art practice training-research. In: AR, [No.] 2, pp: 49-52.

Zupančič, T. (2009): Communicating (by) Curriculum Design. In: Verbeke, J., Jakimowicz, A. (eds.): Communicating (by) Design. Brussels: Hogeschool voor Wettenschap & Kunst, School of Architecture Sint-Lucas, Chalmers University of Technology, pp.: 675-685.

ČLANKI
ARTICLES

RECENZIJA
REVIEW

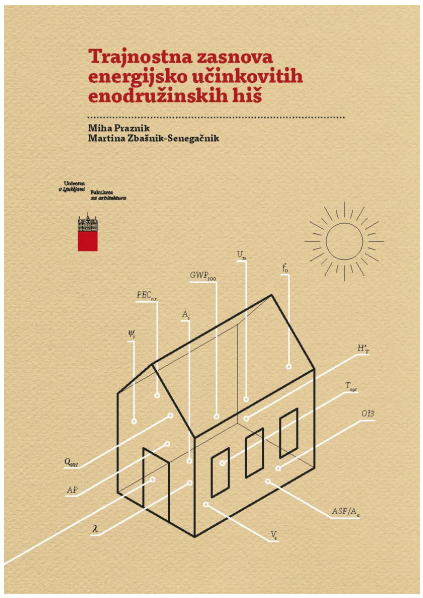
WORKSHOPS
WORKSHOPS

KONGRESI
CONGRESSES

TRAJNOSTNA ZASNOVA ENERGIJSKO UČINKOVITIH ENODRUŽINSKIH HIŠ

SUSTAINABLE DESIGN OF ENERGY EFFICIENT FAMILY HOUSES

Recenzija / Review
Dr. Zoran Veršič:



Miha Praznik,
Martina Zbašnik-Senegačnik
Trajnostna zasnova energijsko učinkovitih enodružinskih hiš
Ljubljana: UL Fakulteta za arhitekturo, 2016
ISBN 978-961-6823-77-7

In the last twenty years, saving energy has been prioritized in all segments of its consumption. The primary goal of energy savings, especially the energy coming from non-renewable resources, is not only to reduce consumption due to limited availability of natural resources, but also for reasons of environmental protection. Consuming and processing energy coming from non-renewable sources leads to carbon emission and release of other toxic and dangerous substances into the environment, which results with many changes in the climate and life on Earth in general.

According to the European Union, the average energy consumption in buildings makes up over one-third of all energy use. That is the reason numerous laws and regulations in the EU member states have addressed the need to limit energy use in buildings.

Reducing energy demands in buildings can be achieved by increasing energy efficiency, which entails lower use of energy in the process of construction, heating, cooling, air-conditioning, water heating and lighting while maintaining the same level of comfort and pleasure of living or working in the buildings.

These requirements have made it customary to design buildings in which energy use is significantly reduced. Minimum energy efficiency standards have been prescribed by regulations while the actual degree of energy efficiency is in the cases of individual buildings determined by investors who have increasingly become familiar with the quality of life in buildings whose construction respected both energy efficiency requirements and the general awareness of possible threat to environment posed by irrational energy consumption.

Early solutions for achieving energy efficiency of buildings were focused on improving thermal protection of the building envelope through increased thermal insulation and high insulation-performance windows and doors. The next step was the construction of airtight building envelope and efforts to reduce thermal bridges. These architectural and structural measures, energy efficiency requirements were directed at increasing efficiency of heating and cooling systems, decreasing energy loss through ventilation of heated spaces in buildings (installation of highly efficient waste air heat recovery systems) and saving energy needed for the preparation of hot water and lighting. All these measures have indeed led to increased energy efficiency or reduction of energy demand associated with the use of buildings.

However, energy consumption is not only related to daily usage since the lifespan of buildings entails stages ranging from their construction, to use and, finally to their deconstruction. Energy consumption in buildings starts from the use of resources for the production of building materials and their processing, transport and use in the construction process and maintenance, and it ends with deconstruction of the built structures and the management of dismantled materials.

The majority of current requirements for energy efficiency is focused on the energy consumed in the course of the use of a building while it neglects to take into account the energy used in other stages of a building's life. Various building materials are characterized by specific energy requirements and the related environmental impact. Building material industry is a significant energy consumer and causes carbon emissions and other types of environmental pollution. Energy consumption in buildings over their lifetime represents the biggest part of the entire amount of energy used in all stages of the buildings' lives. Increasing energy efficiency implies a further increase in the use of building materials and products, which raises the level of energy consumption for the production of building materials and equipment. This dependent relationship means that the reduction of energy demand for the use of a building does not lead to the reduction of the total amount of primary energy used over a building's lifespan.

The first section of the book gives a detailed analysis of a building technology and thermal system used for the building envelope, and the consequent environmental impact caused by the production of materials that can achieve higher energy efficiency.

In the second section, the authors, well experienced in designing energy-efficient buildings, give their take on the topic of design and selection of qualitative parameters for achieving high energy efficiency based on an analysis of existing energy-efficient structures. Designing highly energy-efficient buildings is an interdisciplinary endeavour that inevitably links architectural design of the building envelope to the engineering part of work related to installations. It also entails testing the impact of individual plans on the final result during all phases of the design process. For that reason architects need to know the basic rules which can result in design plans for energy-efficient and cost-effective houses. Verification of energy efficiency in buildings is based on an analysis of different models and parameters which impact energy efficiency. It is therefore important to determine these parameters and how they can be most efficiently used in the search for most suitable design solutions.

The book gives results of the analysis that has been conducted on a sample of over hundred energy-efficient family houses in Slovenia. By interrelating individual parameters and analysing their impact on the result and the achieved energy efficiency it was possible to present optimisation procedures for achieving energy efficiency of family houses.

The book also shows results obtained through measuring energy parameters in the case of energy-efficient residential buildings, and results of a survey conducted on dozens of energy-efficient buildings in Slovenia. These results and previously determined parameters affecting energy efficiency formed a basis for guidelines which are crucial for individual segments that constitute the concept of energy efficiency of buildings as well as for determining engineering properties of installation systems.

The readers can find in the book around ten very good examples of passive and low-energy consumption houses in Slovenia with fundamental information on the houses, their energy performance, building technology and materials, HVAC systems, as well as illustrations and other particularities of each individual house.

"Sustainable design of energy efficient family houses" by Dr. Miha Praznik, a mechanical engineer, and Prof. Dr. Martina Zbašnik-Senegačnik, an architect, is a well-structured book, written in clear and understandable language and it contains numerous illustrations and graphs that further explain the topic. The book gives a detailed and systematic account of a new approach to design and construction of energy-efficient buildings with special emphasis on family houses. The presented topics form a basis for a new design process of highly energy-efficient buildings that takes into consideration the key parameters and indicators for a holistic evaluation of energy efficiency. As such, they also represent an original scientific contribution.

This book could only have been written by authors with abundant experience in design of energy-efficient buildings. Their professions supplement each other and form a common goal by which they have shown an inevitable link between architecture and engineering systems in finding solutions for energy efficiency requirements for buildings.

The authors' scientific and professional work resulted in numerous remarkable papers and projects in this field that stand out from typical architectural solutions. The book is intended for professionals and scientists whose main interest is energy efficiency of buildings and it builds upon the previous research and knowledge on the same topic. Furthermore, it lays the groundwork for future research and practice and can be greatly helpful in analysis and design of new highly energy-efficient buildings.

ČLANKI
ARTICLES

RECENZIJA
REVIEW

WORKSHOPS
WORKSHOPS

KONGRESI
CONGRESSES

DELAVNICA RADOVLJICA, ŠTIRJE RAZMISLEKI 2015
ARHITEKTURNO-URBANISTIČNA DELAVNICA

COBISS 1.05

Organizacija: UL Fakulteta za arhitekturo, Občina Radovljica

Mentorji: izr. prof. Jurij Kobe, doc. Rok Žnidaršič, prof. Paul O. Robinson, Paulo Barbaresi, tehn. sod., Katarina Čakš, tehn. sod., Andraž Keršič, tehn. sod.

Pri obravnavi deponije smo k sodelovanju povabili mag. Milivoja Kodriča, univ.dipl.inž.kem.

Sodelujoči študenti:

Deponija

Žaklin Križaj, Karlo Dean Načinović, Sandra Lovrec, Domagoj Vesić, Maruša Kunstek

Kamnolom Kamna gorica

Lara Baler, Tamara Likon, Javier Pitaluga Navarron, Amadej Lisec, Larisa Vičič, Klemen Frece

Kropa

Daniel Martin, Tilen Mele, Jure Ule, Eva Vranjkovič, Valentina Stinconi, Klemen Mraz, Sara Mask, Rok Lovšin

Podnart

Tadej Burger, Anja Cimerman, Maruša Mali, Jana Stankić, Urška Rozman

Izr. prof. Jurij Kobe
Univerza v Ljubljani, Fakulteta za arhitekturo
Zoisova 12, 1000 Ljubljana

1. Štirje razmisleki

'…Naš cilj je dati javnim prostorom obliko na tak način,da bo lokalna skupnost ta prostor sprejela za svojega, se čutila osebno odgovornega zanj, tako da bo vsak član te skupnosti na svoj način prispeval k okolju, da bo vzpostavil s tem okoljem oseben odnos in se z njim identificiral…'

Herman Hertzberger: Lessons for Students in Architecture; 010 Publishers, Rotterdam, 2005

Ta citat je bil naveden tudi v uvodnik k naši Delavnici iz leta 2006, ko smo obravnavali nekatere teme severnega dela območja Občine Radovljica in bi tudi tokrat lahko predstavljal željo in startno osnovo raziskave in predlaganih rešitev štirih različnih območij v južnem delu radovljiške občine. Delavnica se je dotaknila štirih ne le različnih prostorov, pač pa tudi povsem različnih tem:

1. Opuščena občinska deponija odpadkov 'DIRO' je predvsem tema, ki, bolj kot prostorsko urejanje, odpira vprašanje ekologije, torej zavedanj o vse večji povezanosti vprašanj okolja in trajnosti.

2. Izrazita dvojnost Krope se je pojavila z industrializacijo do tedaj obrtno dejavnega in usmerjenega naselja, kar je kraj izoblikovalo tudi urbanistično. Novo vneseni industrijski obrati so bili seveda v velikem prostorskem nesorazmerju z obstoječim tkivom starega jedra. To je z današnjim načinom življenja izgubilo svojo prvotno funkcijo.

3. Vprašanje kamnoloma Kamna gorica smo z razvojem turizma v kraju povezali v enotno razmišljanje, Tu smo videli vprašanje kot izrazito razvojno: ne moremo se namreč izogniti postopnosti – tako opuščanja kamnoloma, kot tudi širitve že sedaj delujočega športno rekreacijskega območja.

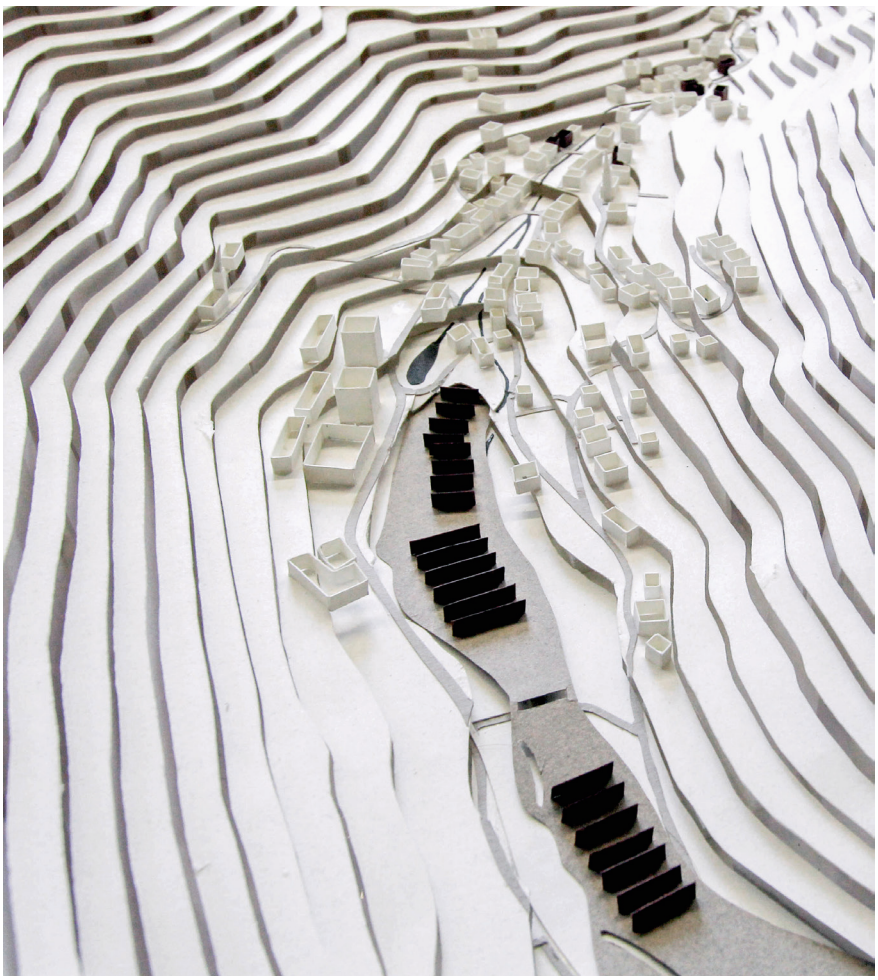
4. Glavni problem funkcije Podnarta – tako z vidika bivanja krajanov, kot tudi za njihov gospodarski razvoj - je seveda v obstoječi prometni situaciji. Tu smo rešitev videli v na prvi pogled radikalni varianti, ki pa se nam ob razmislekih postavlja kot edina resnično učinkovita.

Ob tej nalogi smo, ne glede na dejstvo, da ne kaže neposredne povezave s prometno situacijo samega Podnarta, razmišljali tudi o variantah 'hipotenuze' za veliki gorenjski železniški 'špičasti trikotnik'. Ta danes železniško povezavo občinske regije s severno Primorsko vodi preko Jesenic. Pri tehtanju variant je prevladal predlog, ki upošteva vse večji pomen, ki ga bo imel železniški osebni in tovorni promet v bodoče.

Tokrat smo se pri prezentaciji naših razmišljanj usmerili predvsem v modele in v kolažne prikaze. Z modeli je vsekakor mogoče neposredneje spoznavati prostor. Bolj kot ploskovni načrti, ki so za takšno fazo projekta včasih preveč neposredni, lahko kolaži dovolj abstraktno a vendar nazorneje prikazujejo prostorsko umeščenost naših predlogov. S kolaži želimo uprizoriti tudi ambiente in vzdušja posameznih prostorov...

(iz Uvoda v publikacijo DELAVNICA RADOVLJICA: predlog urejanja štirih območij občine/ (Jurij Kobe …et al) – v Ljubljani: Fakulteta za arhitekturo, 2016. ISBN 978-961-6823-78-4)

Slika 1: Kropa, model.
Figure 1: Kropa, model.



2. Deponija Črnivec

Za deponijo Črnivec, »DIRO«, opuščeno občinsko deponijo odpadkov, je bil 1996 izdelan sanacijski program, ki pa ni bil izveden. Sanacija je nujna, saj se zaradi diluvialne gline sivice in konglomerata teren poseda. Ob prisotnosti vode začne glina nabrekati, podlaga se deformira in postane nestabilna. Z nekontroliranimi posegi v ta prostor se veča možnost sprožanja plazov. Upoštevajoč tudi Lokacijski načrt iz leta 2004 smo predlagali:

2.1. Prva faza: postopki analize

Najprej s sondiranjem ugotoviti velikost in strukturo (vrsto) odloženih odpadkov ter stanje aktivnosti deponijskega telesa. Nato temeljito analizirati izcedne vode in količino ter vrsto sproščenih plinov. Glede na sestavo tal bo potrebno opraviti še oceno tveganja, ki bo pokazala ogroženost območja zaradi plazov v prihodnosti.

2.2. Druga faza: sanacija deponije

Glede na to, da se iz deponije še vedno sproščajo plini, bi bilo potrebno zagotoviti odplinjavanje; pri tem bi vgradili mrežo odvodnih sond. V okolici sond bi določiti cone eksplozijske nevarnosti (Ex cone) in zagotovili ustrezne ukrepe za zanesljivo preprečevanje vžiga in posledičnih atmosferskih eksplozij. Divje deponije je potrebno vedno obravnavati kot mešane. Zanesljivo je odloženih veliko kovin (gospodnjski stroji, avtomobilski deli in šasije ipd.). Posledično take deponije privlačijo strele; ob deponiji bi bilo potrebno naredit strelovod, saj je okoli deponije veliko vegetacije, po kateri se lahko ob suhih obdobjih požar hitro širi.

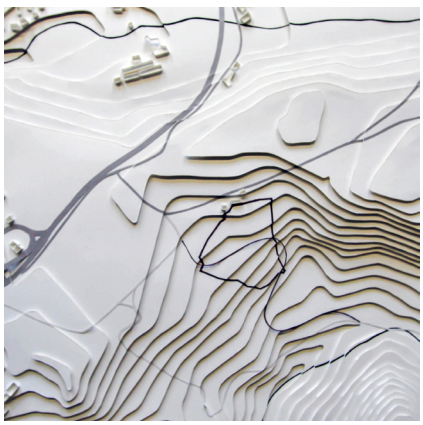
2.3. Ukrepi

"Zaradi bližine varovanega območja bi bilo potrebno celotno deponijsko polje prekriti s PE deponijsko folijo debeline ca. 0,8 mm in vse stike zavariti. Na ta način se preprečuje pronicanje izcednih vod v zemljino. Zgraditi bi bilo potrebno zbiralni sistem za izcedne vode, vpeljati njihovo kontrolo in morebitno obdelavo. Pri čiščenju izcednih in odpadnih vod, bi predlagali naravno prečiščevanje vode z rastlinami. Tako okolice ne bi dodatno obremenjevali. Pri tem bi za vsako prečiščevalno mesto, izkopali dva bazena, prekrita s folijo. V prvem bazenu poteka tako imenovano predčiščenje, v drugem, ki je na nekoliko nižjem nivoju poteka temeljito čiščenje, voda pa je ob iztoku ustrezno prečiščena. Na vhodu v čistilno napravo se namesti perforirane jaške in cevi, da odpadna voda ne dere v bazen, ampak počasi pronica vanj. Po dnu obeh bazenov se namesti neprepustno folijo in jo dobro zatesni. Nanjo se nasuje substrat oziroma različne frakcije drobljenca, torej prod različne granulacije (od najdebelejšega do zelo drobnega). Na prod pa se zasadi trsje ali katero drugo vlagoljubno rastlino. Na njihovih zelo dolgih koreninah se naselijo bakterije, ki čistijo odpadno vodo. Za zasaditev rastlinske čistilne naprave se najpogosteje uporablja trsje, dobro pa se obnesejo tudi šaš, rogoz, perunika in loček."
Povzeto po ekspertizi mag. Milivoja Kodriča, univ.dipl.inž.kem

2.4. Tretja faza: vizija

Pri pripravi predloga bodoče rabe smo se opirali na Pravilnik o določitvi in varstvu naravnih vrednot, ki določa, da se na takih ne gradi objektov, ne slabša kvalitete vode. Ker je deponija na zelo občutljivem mestu, ob zaščitenem območju ter stoji na zelo občutljivih tleh, predlagamo ureditev učne poti, ki bo opozarjala na nevarnosti divjih deponij, omogočala razlago postopkov sanacij takšnih območij in govorila o pomembnosti problema odpadkov v sodobni družbi na splošno. Hkrati bi učna pot pomenila dostop in predstavitev naravne vrednote Peračica. Ob učni poti bi uredili sedežne skupine z informacijami in razlagami. Pred slabim vremenom bi se obiskovalci lahko zatekli v odprta lesena zavetja.

Slika 2: Sanacija deponije Črnivec, model.
Figure 2: Redevelopment landfill Črnivec, model.



Slika 3: Sanacija deponije Črnivec, ambient.
Figure 3: Redevelopment landfill Črnivec, ambience.

3. Kamnolom Kamna Gorica

Nad Kamno Gorico se kamnolom kot rana zajeda v pobočje Jelovice. Naša naloga je bila najti ustrezen program in pristop k sanaciji tega območja po zaključku izkopavanja. V bližini kamnoloma je tik ob Kamni Gorici obstoječe lokalno smučišče s tekaško progo, kjer se v prihodnosti načrtuje podaljšanje proge. Prek celotne Jelovice in po planotah je že mnogo obstoječih kolesarskih ter pohodniških poti, ki so dokaj aktivno uporabljane, vendar so nekatere slabo označene in neurejene. Z analizo in SWOT matriko (ang. kratice za prednosti, priložnosti, slabosti in nevarnosti) smo prišli do sledečih zaključkov in ugotovitev:

Kamnolom je sicer nenaravno opazen s skoraj vseh okoliških hribov in cest v dolini, hkrati pa se od tod odpirajo prelepi pogledi na okolico. Od večjih okoliških krajev je primerno oddaljen, a hitro dostopen z vozilom ali kolesom oziroma malo daljšim sprehodom iz Kamne Gorice. Prostor po zaključku obratovanja kamnoloma lahko nudi številne priložnosti za specifične dejavnosti. Relativno oddaljenost od naselij vidimo kot priložnost za vzpostavitev dejavnosti, ki bi bile sicer moteče (hrup,..) ob hkratnem neposrednem stiku z naravo. Zaprtje kamnoloma je predvideno čez 20 let, zato je na voljo dovolj časa, da se postopno po fazah lokacijo pripravi v smiselno celoto, začenši z drobnimi intervencijami in primerno sanacijo obrobja kamnoloma. Z aktiviranjem potencialov in uporabo danosti na območju lahko morda celo predstavimo poseg, ki v kontroliranih posegih uspešno vključuje kamnolom kot atrakcijo:

3.1. Prva faza

Pomeni aktiviranje turizma skozi celo leto - z menjavo raznih aktivnosti glede na sezono: ureditev in označitev že obstoječih gozdnih poti za toplejše dni ter razširitev smučišča s tekaškimi stezami za zimo. Obstoječim potem se doda nove, saj sedaj zaradi aktivnega izkopavanja kamna v kamnolomu v njegovi bližini niso mogoče. Uredijo se kolesarske poti, postajališča ter razna zaletišča. Niz majhnih intervencij ne zahteva veliko začetnega kapitala a hkrati pripravi območje na kasnejšo intenzivnejšo uporabo ter ustvari večji interes.

3.2 Druga faza

Po končanem delovanju kamnoloma, se odpre kulturni prostor: z različnimi razstavami in koncerti ter posebnim festivalom. Obstoječe površine in objekti nudijo mnogo različnih možnosti uporabe. Spet se oziramo na sezone in funkcijo, zato želimo najti programe za vsak letni čas. Obstoječi objekti v kamnolomu se uporabijo za servisne prostore, največji kot klub, namenjen mladim in starim. Uredijo se travnate površine, namenjene kampiranju po potrebi ob umetno povečani vodni površini, ki se pozimi uporablja kot zalogovnik za umetni sneg.

3.3 Tretja faza

Za potrebe smučišča se žičnico podaljša prek kamnoloma do njegovega vrha, od koder bi vzhodno tekla dodatna adrenalinska smučarska proga, ki zahteva dodatno žičniško linijo. Poleti se žičnica uporablja za prevoz pohodnikov in gorskih kolesarjev. Prostor kamnoloma se kontrolirano odpre.. Na vrhu kamnoloma se postavijo razgledne točke s piknik prostori in možnostjo za kampiranje. Tam nastane upočasnitev, premor…

4. Kropa in Kamna Gorica

Kraja sta zaznamovana kot zibelka kovaštva, zato je smotrno, da razvojni program zraste iz močnih zgodovinskih temeljev in obstoječega znanja. Kraj opredeljujeta dve danes ločeni jedri, ki se vzajemno lahko podpreta in v območje vdahneta življenje. Okoliški kraji sicer premorejo številne kovaške objekte in infrastrukturo, vendar je srce tega življenja trg Kropa s starim jedrom in tovarno Plamen. Tovarna Plamen, ki je sicer spričo velikih uspehov v preteklosti ostala močna dominanta v prostoru, danes obratuje na minimalnih obratih. Zato predlagamo, da se obstoječe površine izkoristi za nov družbeni prostor. Forum oziroma platforma, ki bi omogočila izkoristek potenciala prostora, bi zagotovili skozi sledeči program.

Slika 4: Sanacija deponije Črnivec, model.
Figure 4: Redevelopment landfill Črnivec, model.

Ustanovitev Kovaške akademije, ki bi se povezovala s tehničnimi šolami (les, kovine, tekstil) in kreativnimi izobraževanimi ustanovami (Sred. šol. za oblikovanje in fotografijo, Fakulteta za arhitekturo, Akademija za likovno umetnost, Visoko šolo za dizajn idr.). Kropi bi zagotovili prihodnost ter ohranil njeno znanje in zgodovino. Akademija se širše vpenja v družbo, zato ugodno vpliva na lokalno prebivalstvo, in kraj poveže s širšim krogom populacije. Fab Lab (fabrication laboratory), ki deluje kot skupna delavnica za mnoge uporabnike, ki je namenjena razvoju prototipov. V njem se nahajajo naprave, ki so danes nujne za razvoj izdelkov. Posamezniku te zaradi cene niso dostopne, zato Fab Lab omogoča dostop do tehnično dovršenih strojev širšemu krogu uporabnikov.

Galerija: zagotovitev prostora za razstave. Proizvode, kreacije in potencialne veletržne izdelke je potrebno predstaviti širši množici v primernem prostoru.

Tako izdelke predstavimo v pravi luči (v izvornem prostoru) in vzpostavimo vezi, ki omogočajo trženje izdelka.

Družabni prostori: Kropa danes nima dovolj površin, ki bi omogočale socializacijo ter sprostitev ob hrani in pijači. Z ureditvijo okolice in nabrežja Kroparice ob tovarni plamen ter prenovo njenih notranjih prostorov, bi zagotovili prostor za delo in druženje.

Najem: V okvirih nekdanje tovarne Plamen se ostale prazne prostore izkoristi in uredi za oddajanje potencialnim snovalcem bodisi kot ateljeje bodisi kot pisarne za poslovneže/trgovce.

Vzpostavitev in delovanje programa zahteva primerno oblikovan prostor. Zato sklop objektov Plamen obogatimo s prestrukturiranjem na način, da se opremo na osnovno gradbeno strukturo tovarne. Prizidke odstranimo in prostor, v katerega je osnovna struktura ukleščena, sprostimo. S tem zagotovimo kakovosten javni prostor, ki je za delovanje nujno potreben. Ohranitev in delna redukcija osnovnih volumnov vzpostavi ritem in fluidnost, ki ga v zatečenem stanju ni. V vstopnem delu oziroma današnjem predprostoru tovarne s parkiriščem se formira javna površina, ki je namenjena večjim družbenim dogodkom, kot so sejmi, festival, projekcije filmov, družabni večeri, različne predstavitve... Utrip tovarne in vabljiva okolica bi tako postala nova veduta kraja, nov vstopni nagovor v mesto, ki ga senči in skriva današnja formacija zgradbe tovarne Plamen.

Zaradi upada živahnosti osrednjega trga tu predlagamo revitalizacijo turizma in obrtništva, ki bi v kraj pripeljala življenje in pospešila razvoj v smeri ohranjanja kulturne dediščine ter vračanje javnih površin urbanemu življenju:

V ohranjenih trških hišah predlagamo sledeče programe:

- v mansardi se za namen turizma organizira spanje v slogu knapov
- vmesne etaže prebivalci uporabljajo kot njihove bivalne prostore
- pritličje se nameni obrtnim delavnicam s trgovinami
- predprostor hiše začne formirati javne družabne površine

Slika 5: Kropa, ambient.
Figure 5: Kropa, ambience.

V okviru javnih površin se sanira tudi Žitni most z nabrežjem in trgom. Analize so pokazale dvižni ali vrtljivi most kot optimalno rešitev za trenutno situacijo. Tega bi se lahko ob visoki vodi dvignilo ali zavrtelo in s tem preprečilo zamašitev rečne struge.

Oba programa z medsebojnim delovanjem gradita netilnik, ki bi poleg rešitve kulturne dediščine v staro Kropo in širšo okolico ponovno vdahnil življenje.

Nekoč lepo staro trško jedro danes polnijo neprimerne novogradnje, črnogradnje, neprimerne obnove in razpadajoča dediščina. Za ohranitev dediščine in prekinitev degradacije mesta je holistična obravnava problema nujna. Lastniki želijo od poslopji sodobno rabo, zato jih po svojih najboljših močeh prilagajajo, kar pa večkrat ni v sožitju s kulturno dediščino in jemlje kvaliteto prostoru. Zato je potrebno najprej ustvariti primerno okolje, ki bo spodbudilo k videnju širšega prostora. Sicer problem rešujemo površinsko.

Kamna Gorica je v primerjavi s Kropo širše manj znana po kovaški dediščini, a je v razvoju prostorskih možnosti in kulturne dediščine prav tako pomembna a celo bolj oškodovana kot Kopa. Slikovitost vasi, pomembno kulturno izročilo in dobra umeščenost so še neizkoriščene prvine, ki lahko pomenijo zdravo osnovo za obnovo kraja.

Predlogi:

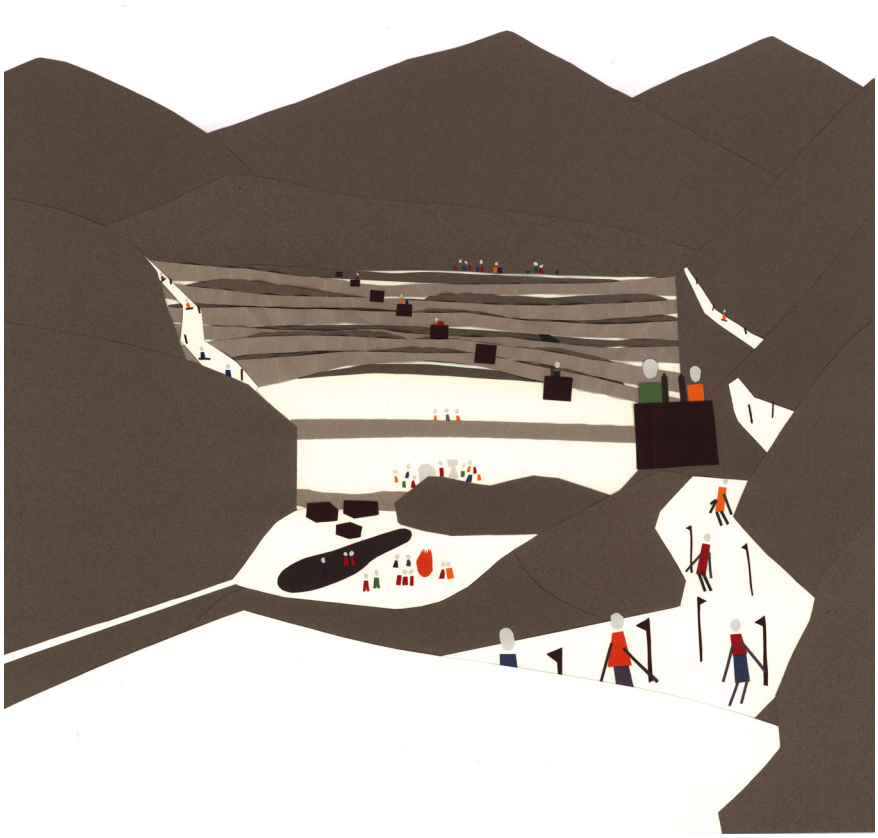
Skupni javni prostor poveže pošto in Dom Krajanov s Tomanovo, Langusovo, Globočnikovo hišo in Kapusovo graščino. Javni prostor, ki je danes razpršen in ločen na drobne medprostore, bi poenotili z enotnim primernim tlakovanjem in urbano opremo. S tem bi zagotovili primeren prostor za različne prireditve in prijeten prostor za pešce, ki je ključnega pomena za živahnost kraja.

Ateljeji in delovni prostori v Tomanovi, Langusovi in Globočnikovi hiši pomenijo nov program, ki pripelje tuj in domači kapital. Danes neadekvatne in neposrečene obnove kulturne dediščine, bi primerno ovrednotili, obnovili in vanje umestili ateljeje. Primerna obnova hiš bi pomenila vzorčne primere varovanje kulturne dediščine in krajanom hkrati dajala zgled za njihove nove posege.

Gostinstvo in mali turizem: Rake s šumečo vodo in ozke prikupne ulice predstavljajo slikovit prikaz dediščine, ki bi ga bilo mogoče izkoristiti tako v mikro ambientih, namenjenih druženju in počitku, kot v gostinstvu. Nekoč opuščeno gojenje postrvi v rakah bi ponovno uvedli in s tem ponudili možnost izkoriščanja lokalnih dobrin v gostinstvu in turizmu nasploh.

Programi Kamne Gorice bi dopolnjevali programe v Kropi. Reševati jih je potrebno sinhrono in celostno. Zgolj tako bi bilo mogoče vzpostaviti povezavo dveh soodvisnih krajev, ki lahko delujeta kot dva različna ambienta in hkrati kot smiselna celota.

Slika 6: Smučišče in kamnolom Kamna gorica, ambient.
Figure 6: Ski resort and quarry Kamna gorica, ambience.



5. Podnart

Podnart je za gručasto, fragmentirano naselje, ki leži ob sotočju Save in Lipnice ter se vije pod konglomeratno steno, nartjo, po kateri je kraj dobil ime. Skozi Podnart vodi železnica, ki ima v kraju železniško postajo z industrijskim tirom, s katerega se napajata aktivni proizvodni območji, umeščeni na vzhodno in zahodno stran železnice. Dodatno možnost transportne oskrbe predstavlja državna cesta, ki se v Brezjah in v Naklem priključi na gorenjsko avtocesto. Obstoječa prometna infrastruktura kraja vključuje most čez Savo, nivojsko križanje z železnico, državno cesto z lokalnimi dovozi, zaseben uvoz v vzhodno proizvodno območje ter cesto, ki vodi do železniške postaje in kot del železniške infrastrukture ne dopušča lokalne rabe.

Delavnico je vodil predvsem razmislek o tem, kako omiliti vpliv prometa in ha učinkoviteje voditi skozi naselje. Prek Podnarta poteka obstoječa regionalna cesta R3-636/1126 Lipnice-Gobovce, ki ima povprečni dnevni promet 2216 vozil. Med temi vozili je skoraj polovica težkega tovornega prometa, saj je zahodno od Podnarta regionalni kamnolom, ki oskrbuje širše gorenjsko območje. Nove povezave naj bi poleg obeh obstoječih industrijskih con oskrbovale tudi tretjo, v dolgoročnem občinskem načrtu predvideno industrijsko cono, ki naj bi bila umeščena višje ob železnici v gorvodnem okljuku Save. Trenutna ureditev povezav je problematična, ozko grlo predstavlja nivojski železniški prehod pred mostom čez Savo. Zlasti v jutranjih konicah prihaja do sovpadanja železniškega, lokalnega in frekventnega tovornega prometa, ki povzroča ohromljeno pretočnost in konstantno obremenitev ceste skozi naselje. Gostota tega prometa in dejstvo, da kraj nima urejenih pločnikov, kolesarskih poti ali kakršnekoli druge sekundarne prometne infrastrukure, močno ogrožata povezanostdelov kraja, prometno varnost lokalnega prebivalstva in posledično kvaliteto življenja v kraju.

5.1 Prva faza

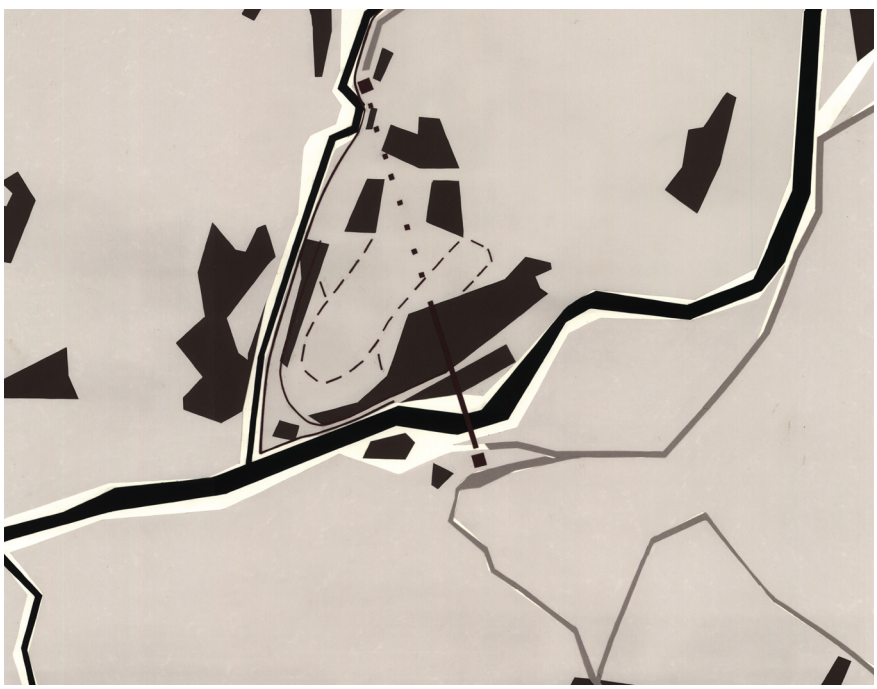
Serijo intervencij v prostor zasnovali v fazah. Kot prvi in najnujnejši poseg, ki bo zaščitil najšibkejše udeležence v prometu, smo predvideli ureditev pločnika, ki poteka ob notranji strani pobočja, saj izvedba ob zunanjem desnem delu ceste zaradi neposredne bližine železnice ni mogoča. Promet umirjamo z uvedbo omejitve hitrosti in ovirami na cesti. Preprosta linija pločnika vizualno poveže kraj, sicer razdrobljen med dvema mentalnima središčema, administrativnim v bližini železniške postaje ter družabnim ob gasilskem in kulturnem domu s pripadajočim športnim igriščem. Pločnikom bi predlagali tudi vzporednice, ki bi pritekale višje po pobočju narti.

5.2. Druga faza

Načrtovali smo ureditev kolesarske steze, ki poteka ob Lipnici in Savi ter s podhodom prečka železniško progo. Ob stezi smo predvideli postavitev klopi, opazovalnice, brvi in prostora za piknik, s čimer pripomoremo k temu, da slikovito in naravno območje Podnarta ter okoliških vasi postane tudi prostor rekreacije in prostega časa ter se kot tako dejavneje vključi v karto gorenjskih kolesarskih poti.

5.3. Tretja faza

Predvideli smo pestro mrežo sprehajalnih poti različnih težavnosti, ki potekajo po pobočju. Od tod so mogoči pogledi na spodaj ležeče naselje in v daljavi na Alpe. Predvidene poti se navezujejo na obstoječe cestno omrežje ter na pločnik, ki je predviden v prvi fazi izvedbe. Izhodiščna točka peš poti je v trikrakem križišču pred nivojskim železniškem prehodom.



Slika 7: Podnart, prometna rešitev, situacija.
Figure 7: Podnart, traffic solution, the situation.

5.4. Četrta faza

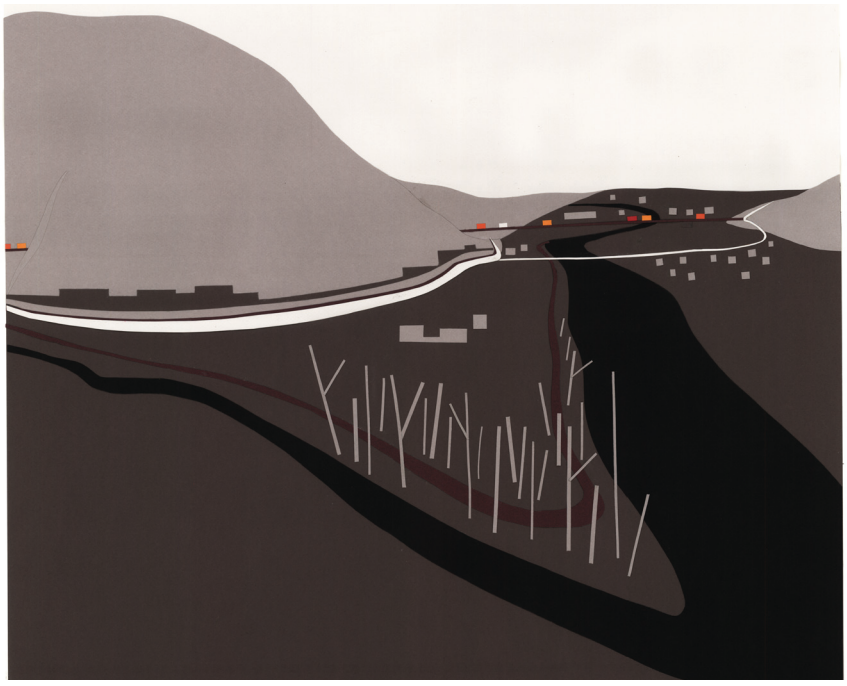
Predstavlja ureditev cestnega omrežja. S krožnim križiščem vzhodno pred Podnartom se tovorni promet, ki je bil doslej najbolj obremenjujoč dejavnik v prometu, preusmeri v tunel, ki poteka diagonalno skozi hrib in se zaključi v liniji obeh industrijskih območij. Tunel se nadaljuje v viadukt, ki preči obe industrijski coni, železnico in reko Savo ter se prek krožnega križišča naveže na državno cesto na sosednjem bregu reke Save. Zahodna industrijska cona se prek novega izvennivojskega križišča priključi na novo predviden viadukt, vzhodna industrijska cona pa koristi obstoječo cestno povezavo prek mostu čez Savo do novega krožnega križišča. Za promet znotraj industrijskih con se aktivira tudi sedaj uporabljeno cesto ob železniški postaji.

6. Železnica

Železniška povezava iz Radovljice do Bleda poteka prek Jesenic, kar predstavlja veliko časovno zamudo. Dolžina odseka proge od Radovljice do Jesenic znaša 15,62 km, od Jesenic do Rečice (Bled) pa 9,86, skupaj 25,48 km. Obstoječi teren med Lescami in Rečico je ravninski, na celem odseku le soteska reke Save predstavlja naravno oviro v prostoru. Predvidena dolžina novega odseka povezovalne proge med Lesami in Rečico bi bila dolžine 5,07 km. Dolžina proge od železniške postaje Radovljica do odcepa nove proge pri Lescah bi znašala 4,10 km, dolžina proge od priključitve nove proge pri Rečici do železniške postaje Bled pa 1,40 km. Skupna dolžina proge med Radovljico in Bledom bi tako znašala 10,57 km, kar bi bistveno skrajšalo čas potovanja (današnja razdalja od Radovljice do Bleda znaša 25,48 km). S tem bi omogočili hiter dostop potnikov iz Radovljice do Bleda in naprej do Bohinja. Železniška proga bi potekala na nizkem nasipu. Na mestu kjer trasa predvidene železniške proge prečka sotesko reke Save se izvede most dolžine 300 m. Uporabljeni elementi na odseku predvidene železniške proge so v skladu s pravilnikom o projektiranju Železnic. V fazi iskanja možne trase železniške proge smo preučili tudi traso od Radovljice vzdolž Save Dolinke do Bohinjske Bele. Ta varianta bi bila bistveno dražja zaradi konfiguracije terena in dolžine cca. 9,50km. Potrebno bi bilo izvesti več mostov, viaduktov in tunelov, obenem pa bi se s to možnostjo izognili Bledu, kar bi pomenilo dodatno škodo za potnike.« (odstavek in vse grafične priloge so delo Tadeja Burgerja, u.d.i.gr.)

Slika 8: Podnart, prometna rešitev, model.
Figure 8: Podnart, traffic solution, model.

Slika 9: Podnart, prometna rešitev, ambient.
Figure 9: Podnart, traffic solution, ambience.



ČLANKI
ARTICLES

RECENZIJA
REVIEW

WORKSHOPS
WORKSHOPS

KONGRESI
CONGRESSES

Marta Bujanda Miguel

CONFERENCE 01: FINANCIAL INSTRUMENTS: OPPORTUNITIES FOR URBAN DEVELOPMENT

Ljubljana, Slovenija
12. november 2015

Kino Bežigrad hosted a presentation and round table on the use of financial instruments as a means of investment and development of cities in Europe. Organized by the Ministry of Environment and Spatial Planning (MOP), and opened by the State Secretary Lidija Stebernak, the session was led by Simon Hočevar from the Government Office for Development and European cohesion policy and Aša Rogelj, from the Ministry of Environment and Spatial Planning, with and introductory presentation on the significance of financial instruments.

An analysis on the gaps in financing urban and territorial development in Slovenia was presented by Gorazd Ocvirk (PwC), exposing the main challenges of finding effective financial instruments in the country and appropriate operational setups and loans. Topics such as how to activate and access to finance, how to break down the concept of "bankable project" and how to create greater efficiency and transparency were presented and discussed dealing with the importance of rate of return of a project.

As foreign guests, Mark Duncan and Ton Overmeire offered the example of Manchester and The Hague and the experience they had making financial instruments work for the cities. Both presented their most successful projects held within the URBACT – CSI Europe, the challenge of making founds accessible and the need of a new public servant figure to help filling the existing gap in the process of urban development at a local level.

These financial instruments are a long-term resource-efficient way of investing in development and growth of cities, companies or individuals within the EU. It targets projects with potential economic viability, supporting a wide range of goals and allowing re-using funds for further development in time. As exposed by the examples in Manchester and The Hague, small projects become easier to be realized and the majority of the projects not only pay their debts faster, but also generated revenue that is again invested in further implementations. It was also highlighted the fact that once you set up a fund for a sector, it becomes easier to set it up for other sectors, creating a snowball effect. It is expected the increaase of financial instruments till 2020 in pursuit of the Europe 2020 Strategy objectives.

Marta Bujanda Miguel

MASTER CLASS: FRANCISCO MANGADO: THE OBJECT AND ARCHITECTURE

Ljubljana, Slovenija
16. februar 2016

Professor at the University of Navarra and visiting professor at the Federal Polytechnic School of Lausanne, prof. Francisco Mangado presented in an master class at Faculty of Architecture of Ljubljana some of his most recent and important works on architecture from a double perspective: as an object that occupies space and costs money, and as architecture that provides a service to the users. It was part of a week ghest workshop at Fakulteta za Arhitekturo organized by Tadej Glažar.

Starting with several social housing projects, Mangado tackled topics such as quality and budget making a clear statement on how modularity and choice of materials can provide the object with high end finishings without compromising expenses. Other projects followed his presentation such as theCongress and exhibition Centre in Ávila, the Archaeological Museum in Vitoria, where architecture revolved around inserting the objects in their context enriching the setting. Oviedo Fine Art Museum, was also presented as an object inserted in an urban setting restoring not only the old building where the art collection sets, but also the urban fabric surrounding it. Finally, Nueva Balastera football stadium in Palencia was presented as an example of duality in architecture: by including in the same object a football stadium and offices for municipal services, the object became liveable permanently and not just temporarily when holding sport events.

Marta Bujanda Miguel

CONFERENCE 03: SPATIALITY AND TEMPORALITY, INTERNATIONAL SYMPOSIUM

Warsaw, Poland
22. april 2016

Interdisciplinary Research Foundation organized the conference »Spatiality and Temporality« in order to address the complex issue of space and time through perception and experience. The conference was addressed to multidiciplinary academics, researchers and professionals from various disciplines including history, sociology, anthropology, culture studies, literature and architecture.

The conference explored spatiality and temporality as fundamental categories of human experience and cognition and it discussed various interpretations of these categories and complex relations between them. The conference also examined conceptions and perceptions of time and space in relation to memory, historical and social change, technological innovations, interactivity and cultural differentiation.

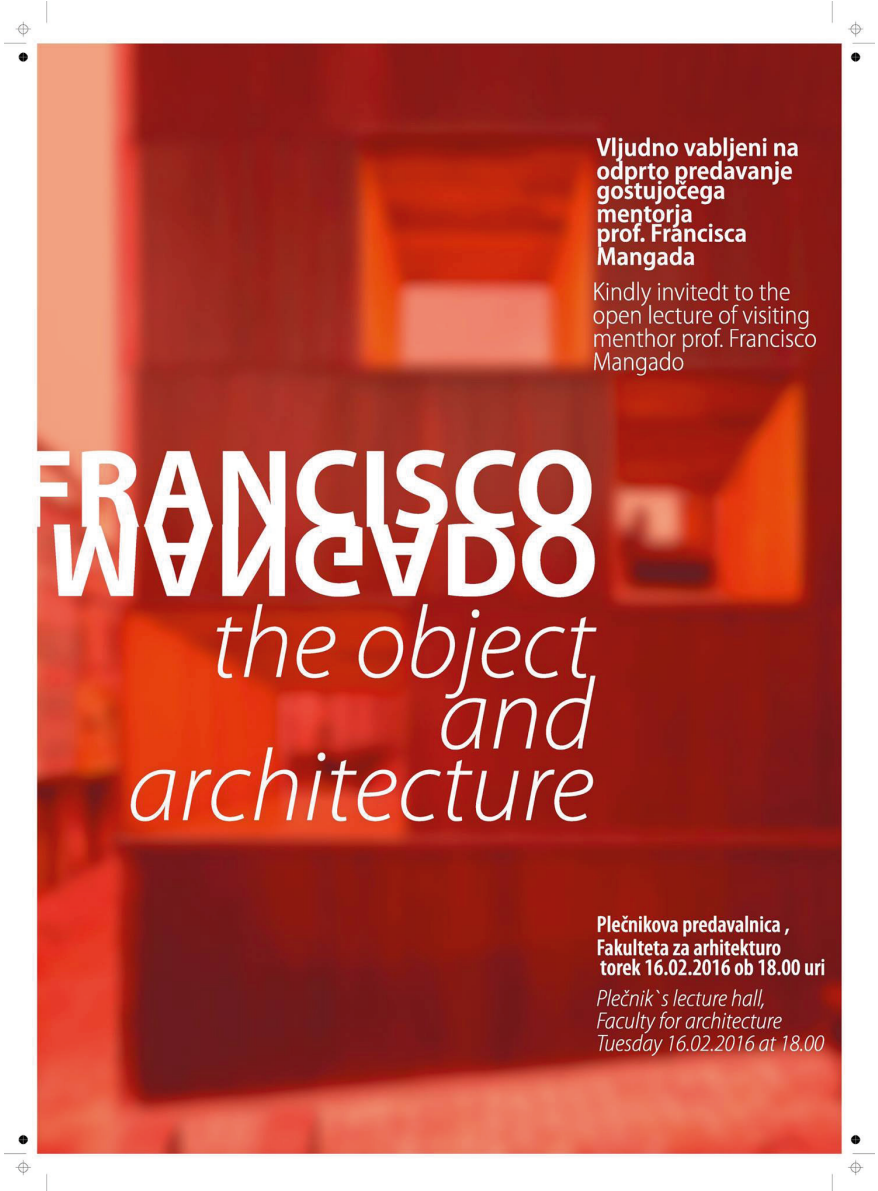
A total of 12 parallel sessions were organized in 3 rounds where topics such as time and space boundaries, monuments and historical sites, globalization and urban spaces, places made by nature, and ruins and forgotten places were discussed. Professionals from universities from up to 15 different countries shared and discussed their points of view on how to address space and temporal challenges in different fields and thoughts on how to solve them. As a key speaker, Prof. Ingrida Egle Žindžiuvienė was invited to talk about »Collective memory from the aspect of time and spsace« and presented an interesting perspective on the narrative percepiton of collective traumas and the benefits and threats of writing fiction based on real facts.

Title of the presentation: Spatial perception of rural pockets and healthy urban regeneration

This presentation dealt with the spatial perception of local, traditional spaces withstanding the extensive metamorphosis suffered in the last century in post-industrial cities.

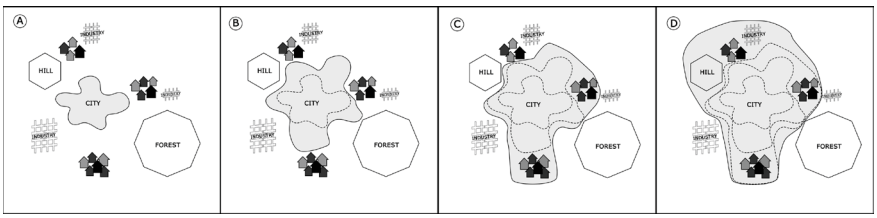
Slika 1: Kino Bezigrad, konferenčna soba. (Avtor)
Figure 1: Kino Bezigrad, conference room. (Author)

Slika 2: Francisco Mangado: The object and architecture. Plakat.
Figure 2: Francisco Mangado: The object and architecture. Plakat.



Slika 3: Enojni kozolec v živalskenm vrtu v Ljubljani. (Avtor)
Figure 3: Single kozolec reused in the Zoo of Ljubljana. (Author)

Slika 4: Kozolci pod Golovcem, Ljubljana. (Avtor)
Figure 4: Rural pocket of kozolec in Golovec, Ljubljana. (Author)



These pockets generally consist of former peripheral areas assimilated by urban growth of nearby cities. They often comprise low density spaces with a strong recognizable rural attachment inserted in urban landscapes.

To contextualize this problematic, a specific study case was presented: The city of Ljubljana and rural pockets created inside its ring by kozolec – Slovene self-standing vernacular construction used for drying and storing cereals. From here, applicable conclusions to similar scenarios were extracted.

The method of analysis used was based on Hegel's logic applied to the dialectical method: Rural pocket and urban space are opposite paired concepts examined as complementary and not excluding factors, which creates a synthesis for city temporary perception and spatial development.

Modern, global urban fabric and local, own surviving elements were presented to comprehend space-perception of current cities and understand their implications in city development. Parameters like phenomena, object and intermediary object were described, together with the effect of socialization in the understanding of the city as a living organism and its spatial perception by its users.

As a conclusion, it was presented the potential of using rural pockets for a healthy urban regeneration, and the benefits of evolving rural pockets to quality urban elements.

BUJANDA MIGUEL, Marta: Varieties of maize aerial drying sheds in Europe. AR 2014/1, pp. 27-36. UL-FA, Ljubljana, 2014. [COBISS.SI-ID 3123332].

Slika 5: Shema rasti mesta skozi čas. (Avtor)
Figure 5: Scheme of city growth in time. (Author)

Domen Zupančič

TEHNIČNI DAN: KOZOLEC IN HLAPEC

Liznjekova hiša, Kranjska Gora
7. oktober 2015

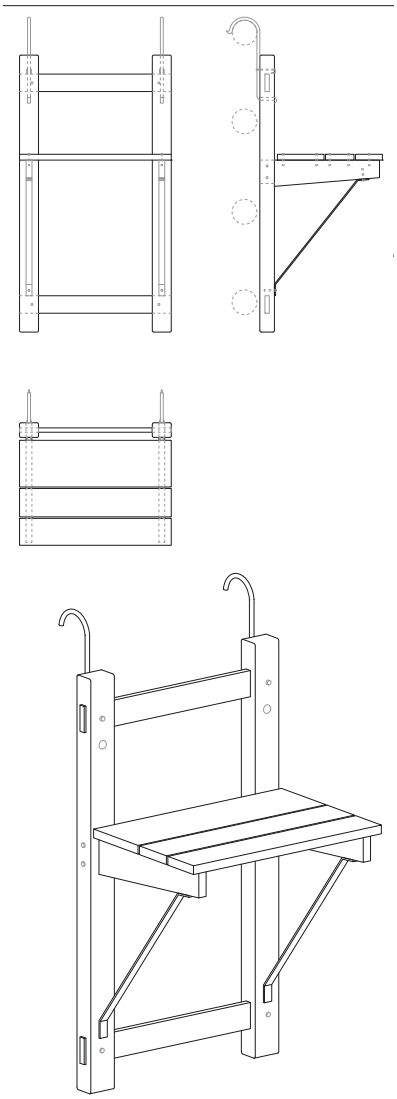
V okviru razstave o kozolcih v Zgornjesavski dolini smo organizirali tehnični dan s področja arhitekture, tehnike in likovne umetnosti za osnovnošolske otroke (OŠ Kranjska Gora). Delovni nalogi sta bili dve in sta zajemali delo s papirjem, izdelavo papirne animacije, prepoznavanje prostorskih risb in lesenih končnih elementov ter njihovo sestavljanje v celoto (stol hlapec).

V prvem delu so otroci prejeli več pol papirja (A3 format), na katerih so ročne skice postavitve in uporabe kozolca v dolini. Ročne skice so vsebinsko zajemale zakoličbo objekta, postavitev konstrukcije, streho in načine uporabe kozolca z branco (podaljšano streho). Razporeditev skic na polah je bila naključna. Otroci so imeli nalogo: razrez listov na posamezne skice, razvrstitev skic v smiselno celoto in s kovinsko sponko strniti skice v snopič. Snopič skic med listanjem predstavi animirano predstavitev postavitve kozolca. Druga naloga pa je bila povezana z izdelavo hlapca. V sodelovanju z lokalnim tesarjem Marjanom Robičem smo pripravili lesene sestavne elemente hlapca. Načrt hlapca je bil predstavljen v okviru razstave. Tako so otroci pokazali sintezo branja načrta in prepoznavanja sestavnih elementov. Spoje so mozničili (uporabili so lesene cveke) in na posameznih mestih (sedišče) so deske vijačili. Delo je potekalo v skupini do 10 učencev.

Izdelali smo dva hlapca, ki sta postala del razstavnih eksponatov. Otroci so soustvarjali razstavo in ob tem krepili zavedanje o prenosu znanja med generacijami in zavedanju identitete lokalne tradicionalne arhitekture.

Cilji pedagoškega programa za učence:

- Se srečajo z živo arhitekturno dediščino v besedi, sliki, modelu in v prostoru.
- Spoznajo vlogo arhitektovega dela pri dokumentiranju arhitekturne krajine.
- Predelijo pojem arhitekturna dediščina, kulturna krajina, ruralno okolje, osvojijo tehnične izraze skodla, špirovec, lega, steber, temelj.
- Se navajajo na zbrano poslušanje vrstnikov, kustosa… in krepijo kritično razmišljanje o načrtovanju v arhitekturi.
- Razvijajo sposobnost za miselno in čustveno sodelovanje.
- Odkrivajo možnosti izdelave lastne mini ročne animacije z uporabo papirnih lističev.
- Učijo se geometrije z uporabo likovne umetnosti.
- Učijo se branja načrtov in krepijo prostorske predstave.
- Razvijajo motorične spretnosti (predvsem fino motoriko).
- Krepijo identiteto in pripadnost kulturnemu prostoru.



Slika 6: Hlapec na Karoščovmo stogu.
Figure 6: Hlapec at the Korošec Hayrack in Gozd Martuljek.

Slika 6: Otroci med izdelavo arhilistanke z naslovom: Kako postavim kozolec.
Figure 6: Children in the process of making paper animation "How to build a hayrack".

NAVODILA AVTORJEM
AUTHORS GUIDELINES

NAVODILA AVTORIJEM

Seznam digitalnega in natisnjenega prispevka za oddajo v uredništvo:

1. Podatki o avtrojih.
2. Naslov prispevka (SLO in ANG).
3. Izvleček (SLO in ANG).
4. Ključne besede (SLO in ANG).
5. Seznami dežel in objektov.
6. Besedilo članka.
7. Viri in literatura.
8. Grafično gradivo z opisi grafičnega gradiva (SLO in ANG).
9. Vsa besedila morajo biti jezikovno ustrezna in **lektorirana z navedbo lektorja oz prevajalca.**
10. Če je članek v okviru doktorskega študija na UL FA, mora avtor na to opozoriti, da bo ob prispevku objavljen del recenzije.
11. **Podpisano izjavo o izvirnem avtorstvu besedil.**
12. **Podpisana dovolila za objavo grafičnih elementov.**

Oddaja prispevka (oba koraka sta obvezna)

1. Tiskani izvod + spletni prenos na e-naslov:

UL Fakulteta za arhitekturo
AR arhitektura, raziskave
Uredništvo
Zoisova 12
1000 Ljubljana
Slovenija

domen.zupancic@fa.uni-lj.si

Avtor z oddajo članka zagotavlja izvirnost in avtorstvo. Z oddajo zagotavlja, da ne tekst ne grafični del nista bila objavljena ali poslana v objavo drugi reviji (razen poročil).

Vsak avtor odgovarja za svoj prispevek v celoti. Avtorji naj upoštevajo zakon o avtorskih pravicah (Uradni list RS, št. 21/95, 9/01). Ta načelno dovoljuje objavo že objavljenega tujega grafičnega gradiva kolikor gre za ponazoritev, vendar mora biti vir vedno popolno naveden.

Avtorji prispevka predložijo pisna potrdila, da se avtor grafičnega gradiva strinja z objavo v spletni in tiskani reviji AR arhitektura, raziskave.

Elementi prispevka

Akademski naslov, ime in priimek

Naslov organizacije

E- poštni naslov

Naslov članka

Do **85 znakov s presledki.**

Naslov je v je **v slovenskem in angleškem jeziku.**

Izvleček članka

Dolžina **med 1000 in 1400 znakov s presledki.**

Izvleček naj zajema temeljne vsebinske opise iz besedila. Izvleček naj bo razumljiv, tako da bo jasno in jedrnato predstavil glavno temo in ugotovitve vašega besedila.

Besedilo izvlečka je **v slovenskem in angleškem jeziku.**

Ključne besede [ključne besede / key words]

Do **5 besed**

Zapisane ključne besede opredelijo tematiko prispevka. Izogibajte se veznikom (in, ali).

Podane so **v slovenskem in angleškem jeziku.**

Dežele omenjene v besedilu

Seznam dežel oziroma držav omenjenih v besedilu prispevka. Seznam je koristen zaradi indeksiranja prispevka.

Seznam grajenih struktur ali arhitekturnih objektov

Avtor pripravi seznam grajenih struktur ali arhitekturnih objektov na katere se prispevek nanaša. Seznam je koristen zaradi indeksiranja prispevka.

Besedila članka

Kratki znanstveni članek zajema do 3000 besed.

Daljši znanstveni prispevek znaša med 5000 in 6500 besed.

Daljša besedila v uredništvu ne sprejemamo.

Vire navajajte sproti v besedilu teksta z uporabo oglatih oklepajev [in] in jih ob koncu članka vključite v seznam virov in literature. Struktura navedbe citiranja vira [Priimek, letnica: številka strani navedbe] ali navedba vira ob povzemanju vsebine vira [Priimek, Letnica].

Primer navedbe vira v besedilu: Švicarski paviljon je bil zamišljen kot "švicarska glasbena skrinjica" [Uhlig, Zumtor, 2000].

V reviji AR arhitektura raziskave **se opombe pod tekstom ne izvajajo.** Avtorji jih lahko vključijo neposredno v osnovno besedilo. Za nazornejše prikaze razmišljanj, utemeljitev misli in metod je priporočljiva tudi uporaba **izvirnih grafičnih elementov** kot so skice, risbe, načrti, fotografije, grafikoni in tabele.

Grafični elementi

V članku je lahko **do 8 grafičnih elementov** sem sodijo tabele, slike, skice in drugo.

Napisi pod grafičnimi elementi so **v slovenskem in angleškem jeziku.**

Vsi grafični elementi naj bodo priloženi posebej. Grafično gradivo naj bo shranjeno v posameznih datotekah z imeni, ki so enaka kot so uporabljena k pripisom k slikovnemu gradivu. Vsako grafično gradivo naj ima besedilu prispevka pripadajoči opis.

Primer: Datoteka Slika_01.tif je slika 1 v besedilu članka.

Slikovno gradivo naj bo pripravljeno z resolucijo 300 dpi za fotografije in 600 dpi za skenirane črno bele načrte ali sheme. Priporočljiv format za slikovno (bitno) gradivo je TIFF ali JPG. Priporočljiva okvirna velikost gradiva je 10x15 cm. Grafičnih elementov ne vključujte v besedila članka. V članku lahko predvidite mesto grafike tako, da naredite trojni presledek v tekstu in vnesete ime grafičnega elementa in pripadajoči **opis v slovenskem in angleškem jeziku.**

Primer navedbe grafičnega gradiva v tekstu:

Slika 2: Objekt z vzdolžnim in s prečnim slemenom, Tlorisni gabariti so enaki, 6x8 m, naklon strehe je 30°, debilna zidu 40 cm.

Viri in literatura

Vsako navajanje v prispevku mora biti navedeno v seznamu virov in literature, **omejeno do 4000 znakov s presledki oz. do 20 naslovov.**

Neobjavljene vire ali ustne vire podrobneje opišite v besedilu prispevka.

Navajanje člankov in drugih virov, ki so v postopku tiska je možno za jasno navedbo vira in pisnim dokazilom, da je navedeni prispevek v tisku.

Knjiga

Priimek, Prva črka imena. (letnica): Naslov knjige. Založba, Mesto.

Primer: Nishi, K., Hozumi, K. (1985): What Is Japanese Architecture? Kodansha International, Tokio.

Članek

Priimek, Prva črka imena. (letnica): Naslov članka. V:Publikacija, Letnik, Številka: stran članka od do.

Primer: Lah, L. (2002): Muzeji na prostem - večplastnost pomenov za ohranjanje arhitekturne dediščine. V: AR, 2002/1, str.: 64–65.

Spletni naslov

Naslov strani

navedba celotnega naslova, <mesec, letnica>.

Primer: Fakulteta za arhitekturo UL http://www.fa.uni-lj.si/default.asp, <november, 2009>.

Zakoni in pravilniki

Publikacija objave in številka publikacije,(letnica): Naslov zakona. Člen št.

Primer: Uradni list RS 96 (2002): Zakon o uresničevanju javnega interesa za kulturo. Čl. 2.

Standardi

Področje urejanja, navedba standarda.

Primer: Laboratorijske preiskave, Mednarodni standard SIST EN ISO/IEC 17025:2005.

Uredništvo AR

AUTHOUR GUIDELINES

Check list before submitting the paper

1. Author's metadata.
2. Title of the paper. Translation in SLOVENE will be charged by AR Journal Service.
3. Abstract. Translation in SLOVENE will be charged by AR Journal Service.
4. Key words. Translation in SLOVENE will be charged by AR Journal Service.
5. List of countries and building objects.
6. Body text.
7. References.
8. Graphical material with corresponding text of graphics. Translation in SLOVENE will be charged by AR Journal Service.
9. All text should pass proof reading (spellchecked and grammar-checked).
10. In case the proposed paper is meant as an article for PhD study at UL Faculty of Architecture the author should point out that the referees' comments will be published along the paper.
11. Signed paper of the originality of the paper.
12. Written approval from the author of graphics to be publish in the AR architecture, research

How to submit a paper (both steps are obligatory)

1. Printed + WEB transfer email:

UL Fakulteta za arhitekturo
AR arhitektura, raziskave
Uredništvo
Zoisova 12
1000 Ljubljana
Slovenija

domen.zupancic@fa.uni-lj.si

By submitting an article, an author or group of authors guarantee its originality and authorship. The submission itself confirms neither the text nor graphics have been published or submitted to another magazine (except for news).

All authors are accountable for their contribution in its entirety. Authors shall take into account the Authors' Rights Act (Uradni list RS, No 21/95, 9/01). In principle, it allows for the publication of already published graphic material for illustrative purposes, but the source must be fully quoted.

For graphical elements authors of the paper should obtain written approval from the author of graphics to be publish in the AR architecture, research (printed and web version).

Elements of paper

Academic title, Author Name and surname

Organisation

E-mail

Title

Up to **85 characters including interspaces.**

Submit ENGLISH title. Translation in SLOVENE will be charged by AR Journal Service.

Abstract

From 1000 to 1400 characters including interspaces.

Abstract shortly describes the contents of paper presented. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, references should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Submit ENGLISH abstract. Translation in SLOVENE will be charged by AR Journal Service.

Key words

Up to 5 words and up to 50 characters including interspaces.

Please avoid any general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Submit ENGLISH key words. **Translation in SLOVENE will be charged by AR Journal Service.**

Countries mentioned / involved

The list of countries mentioned or involved in the paper. The list will be used for indexing purposes.

Building types discussed in paper

The list of building types mentioned / involved / discussed in the paper. The list will be used for indexing purposes.

Paper length

Short scientific paper 3000 words.

Full scientific paper from 5000 to 6500 words.

Sources should be quoted within the text as you write by using square brackets [and], and included in the sources and literature list at the end of the article. The structure of the source quotation [Surname, Year: page number of the quotation] or of the quotation of a source when its content is summarised [Surname, Year].

Example of a source quotation within the text: The Swiss pavilion was conceived as a "Swiss music box" [Uhlig, Zumtor, 2000].

In AR architecture, research magazine any footnotes should be included in the body text as quotation. For clearer presentation of thoughts, argumentation and methods, it is recommended to use **original graphic elements** such as tables, graphs, sketches, drawings, schemes and photographs.

Graphical elements

Up to **8 elements** (all elements).

Submit ENGLISH description. Translation in SLOVENE will be charged by AR Journal Service.

All these elements should be enclosed separately to your contribution. Graphic material is kept in separate files holding names used in the article. Use a logical naming convention for your artwork files. Produce images near to the desired size of the printed version.

Example: File Figure 01.tif corresponds to Figure 1 in the text of the article.

Pictorial material should be prepared at a resolution of **300 dpi for photographs and 600 dpi for scanned black-and-white plans or schemes.** Recommended formats for pictorial material are TIFF or JPG. The recommended size of the material is 10x15 cm. Do not include graphic elements in the text of the article. You may indicate their positions by triple interspacing the text and entering the name of the graphic element and a corresponding caption.

Example of indication of graphic material within the text:

Figure 2: Structures with longitudinal and transverse ridge. Floor plan dimensions are the same, 6 x 8 m, 30° roof pitch, wall thickness 40 cm.

References

Every reference cited in the text must be present in the reference list (and vice versa). **Up to 4000 characters including interspaces and not more than 20 sources.** Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list, they should follow the standard reference style of the journal and should include a substitution of the publication date with either **'Unpublished results'** or **'Personal communication'**. Citation of a reference as **'in press'** implies that the item has been accepted for publication.

Books

Surname, First letter of the name., (year): Title of the book. Publishing House, City.

Example: Nishi, K., Hozumi, K. (1985): What Is Japanese Architecture? Kodansha International, Tokio.

Journal papers

Surname, First letter of the name. (year): Title of the article. V: Publication, Volume, Number: article pages from to.

Example: Lah, L. (2002): Muzeji na prostem - večplastnost pomenov za ohranjanje arhitekturne dediščine. V: AR, Let. IV, št. 1, str.: 64–65.

WWW sites

Name of the website

full address

<month, year>.

Example: Faculty of architecture UL. http://www.fa.uni-lj.si/default.asp, <November, 2012>.

Legislation

Publication and its number, (year): Title of the law. Article no.

Example: Uradni list RS 96 (2002): Zakon o uresničevanju javnega interesa za kulturo. Čl. 2.

Standards

Regulation area, quotation of the standard.

Example: Laboratorijske preiskave, Mednarodni standard SIST EN ISO/IEC 17025:2005.

Encyclopedia and Dictionaries

Publisher or editor (year): Title, Publishing House, Place: page.

Example: SAZU (1970 – 91): Slovar slovenskega knjižnega jezika, 1-5. SAZU in DZS, Ljubljana: stran 52.

AR Editorial Board