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UVODNIK

V tej številki smo strnili različne prispevke začeni na področju arhitekturne dediščine. Avtorji Potočnik, Kobe in Kosmatin Fras predstavljajo odnos družbe do barve v okvirih arhitekturne dediščine. Ugotavljajo, da zaznava barv z vidika tehnologije ne predstavlja ovir pri dokumentiranju. Izpostavljajo bolj perečo problematiko: vrzel med splošnim razumevanjem vrednosti dediščine med vsebino dokumentov in barvno komponento teh istih dokumentov. Diskusija prispevka se naslanja na lastne vire in tudi še na mednarodna načela in prakse v tujini. Prispevek avtorji zaključijo, da je odnos do barve subjektiven, a vendarle lahko z ustreznimi metodami (laserski skener, fotografija, itd.) barvo in dediščino tehtneje ovrednotimo ter v skrajnem primeru reproduciramo.

Kolegica Hudnik v prispevku predstavlja dve kitajski mesti Peking in Šanghaj, vsebinsko se osredotoča na pojavnost javnega prostora v treh kontekstih: socializma, ekonomije in razvoja kitajske družbe. Kitajska s svojim intenzivnim razvojem na vseh možnih področjih postavlja nove relacije v svetu. Avtorica neskromno začenja s tem prispevkom serijo vsebinskih pogledov na t.i. hiperurbanizacijo oz. urbanega booma, kot ga imenuje Neville Mars. V zaključkih, ki so mestoma manifestativni zavzema stališče, da mesta ne smejo slediti diktatu tržne logike in nesmiselnih investicij, ki se ne prilagajajo specifičnemu kontekstu družbe in prostora. Avtorica izpostavlja, daje prav hiperurbanizacija prevzela načela globalne ekonomije in zanikanja družbenega kapitala. Ne tem mestu dodajam, da je hiperurbanizacija del "jedrskih" konic kapitala brez meja. Odprti javni prostori so v tem pogledu rezultati implozije družbenih vrednot in eliminacije socialno-kulturnega konteksta.

S prispevkom na temo arhitekturnih refleksij se bralci pomaknemo od hitrega urbanega razvoja na področje raziskovanja procesa oblikovanja in predstavitve oblikovanja v javnem prostoru. Avtorica Juul nadaljuje diskurz o vplivu političnega sistema na arhitekturo in zaznavo prostora.

Teorem, da javni prostor ne bi smel biti oblikovan izključno za določen del družbe in da vse mesta ne bi smela stremeti v kopiranje podob mest, je dobro izhodišče za razmislek in raziskavo. Avtorica v prispevku predstavlja zbir lastnih praks z možnostjo ustvarjanja javnega prostora iz delovanja in ne iz oblike. Tu bi bila zanimiva dialektična razparava med Juul in Hudnik, saj je javni prostor v Pekingu in Šanghaju rezultat delovanja družbe (kakršne koli) in zanikanja oblike. Jullova izpostavlja inovativnost snovanja in arhitekturne komunikacije v javnem prostoru.

Arhitekturno snovanje del procesa inovativnosti. Vsaka prostorska rešitev je inovacija. Avtorja Vreš in Demšar Vreš v prispevku predstavljata inovativnost v praksi: glamping. Nagrajeni projekt Garden Village Bled je primer dobre prakse, kjer so strnili sredstva, vizijo in znanje arhitekti, krajinski arhitekti ter investitor. Poleg projekta na Bledu avtorja predstavita primere dobre prakse glamping letovišč iz Kanade, Tanzanije in Avstralije. Projekti niso zgolj prostorske rešitve, temveč posegajo tudi na družbeno področje: promocija kulture avtohtonih prebivalcev Avstralije, vključevanje indijanskih plemen Kanade ali aktivno delovanje na področju edukacije o biološki raznovrstnosti območja. Projekti predstavljajo skladnost med krajinsko zasnovo in arhitekturo. Prispevek je dober primer promocije sodelovanja med strokami.

Mladi kolegi Stare in Pezdir z lastnima prispevkoma predstavljata rezultate med disciplinarnega projekta: Raziskovanje procesa managementa: Potencial trženja trajnostnega turizma v Ljubljani. Projekt je povezal Ekonomsko fakulteto UL, Naravoslovnotehniško fakulteto UL in Fakulteto za arhitekturo UL ter zasebno podjetje Kaaita, d.o.o.. Izmuzljiv izraz trajnost v turizmu smo s tremi predlaganimi modeli dobro opredelili in smiselno vključili v lokalno skupnost (Turizem Ljubljana), saj bo v letu 2016 mesto Ljubljana Zelena prestolnica. Največji dosežek je v tem, da je bil študentski predlog Po zmajevi poti deležen intenzivnega zanimanja Turizma

Ljubljana in kaže da bo projekt v modificirani obliki ugledal luč sveta. Ekipa študentov omenjene skupine ima velike možnosti, da bo projekt iz prototipa prešel v tipizirani modelni produkt trajnostnega turizma MOL.

Projekt je presegel osnovna pričakovanja mentorjev in študentov. Da bi omogočili čim večjo odmevnost našega projekta smo se mentorji odločili, da bomo izvedli didaktično razstavo s plakati in zgibanko, ki jo bomo gostili na članicah UL. Projekt PKP je dobra pot pri opolnomočenju mladih, da so zmožni presegati ustaljene okvire študijskih smeri in da je sodelovanje ključ do poslovne uspešnosti.

Srečno v 2016.

Urednik

doc. dr. Domen Zupančič

EDITORIAL

This issue has papers from different areas concerning public space in Beijing and Shanghai, architectural heritage, colour, and sustainability issues in management and performing research in public space. Paper from authors Potočnik, Kobe and Kosmatin Fras presents the attitude towards colour in architectural cultural heritage (ACH) valorisation. They explored legislation as a framework for experts in practice. Their paper includes a brief overview of international (ICOMOS) charters and conventions in the field of ACH. Paper focus is not the technology of documentation – this issue has already been discussed in previous AR issues. Topics of discussion are wider: relationship and importance of colour values between common (public) and declared (expert) in the field of ACH. Accuracy, precision and singularity of data have relevant roles when the reproduction of ACH monument is at stake.

Next issue of the journal is focused in eroding values and the discussion of the importance of the public open space. Location: China, presented as the most hyper-developing region in the world, so far. Hudnik's paper presents selected open spaces in the urban bursting cities of Shanghai and Beijing. This presentation is not architectural; it is a discussion and critique borrowing the theories of socialism, global economy and sociology. Volatile hyperurbanisation goes hand in hand with laissez-faire capital. However the term laissez-faire promoted by non-governmental interference in China does the opposite. Strict governmental capital control produces an ideal environment to devastate open space development. Urban boom as Neville Mars described China's urban development promotes a dull narrow capital investment cycle gaining towards fast capital revenues. In these first few days of January some clear signs of a new global crisis were documented: China Stocks – Trading Called Off for Second Time This Week. (see: The Wall Street Journal: www.wsj.com/articles/china-stocks-trading-called-off-for-second-time-this-week-1452133928).

Hudnik's paper may be a start of a series of discussion papers about the role of capital investment and the role of open space. Some relation may be found in Tuna's paper in our previous AR issue.

Our guest researcher at UL FA Juul has prepared an interesting paper about architectural interventions as part of critical spatial practice. Juul starts with the axiom that public space should not be designed for one part of the society (unilaterally). Architectural research, including a political theory, gives the paper a good framework and starting point to transcript theory into practice. Juul has several practical examples and presents several own projects as active responses in the open public space. Those close relations are much needed in all kinds of societies, democratic and "monocratic".

Authors Vreš and Demšar Vreš are taking great concern about capital investment needs and canons of architectural design. The project 'Garden Village Bled' promotes glamping and makes new ties between tourism and landscape architecture. Their paper includes few selected international projects as best practice cases. Case studies are related with architecture, landscape architecture, economy, tourism and, last but not least, natural and cultural diversity. They promote the term of sustainability in the way C. Alexander pointed: sustain and ability to sustain.

In this manner the last two papers are presented. Young colleagues Pezdir and Stare were part of an interdisciplinary project research team (Faculty of Economics UL, Faculty of Natural Sciences and Engineering UL and Faculty of Architecture UL, Kaaita, d.o.o.). The aim of the project was to define sustainable management process using social innovation methods. The project was successfully finished in 2015. In the year 2016 we will make an effort to promote project's results to practice.

Happy 2016.



ČLANKI ARTICLES

TEHNOLOŠKI VIDIK BELEŽENJA BARV PRI DOKUMENTIRANJU IN VREDNOTENJU ARHITEKTURNE DEDIŠČINE

TECHNOLOGICAL ASPECTS OF RECORDING COLORS IN DOCUMENTATION AND EVALUATION OF THE ARCHITECTURAL HERITAGE

Ključne besede

arhitekturna dediščina; barva; senzorji

Key words

architectural heritage; color; sensors

Izvleček

V članku je predstavljen odnos družbe do barve kot elementa arhitekturne kulturne dediščine v okviru zakonskih določil, s stališča prakse in z vidika mednarodnih dokumentov. Izpostavljeno je vprašanje vrednotenja dokumentacije kot sestavine dediščine ter pomen njenega hranjenja in nadgrajevanja med vso življenjsko dobo dediščine. V nadaljevanju je predstavljeno merjenje barv, tehnološko ozadje digitalne fotografije, fotografiranje z velikim dinamičnim razponom in lasersko skeniranje. Ugotovljeno je bilo, da ni tehnoloških ovir za beleženje podatkov o barvah. Obstajajo sicer nekatere omejitve pri interpretaciji in nadaljnji reprodukciji zapisanih informacij, še pomembnejša pa je vrzel med splošnim razumevanjem in upoštevanjem pomena in deklarirano vrednostjo dediščine z njeno barvno komponento na eni strani ter vsebino shranjenih dokumentov o barvi na drugi strani. Razprava je zatem razširjena na mednarodna načela in prakso dokumentiranja dediščine v širšem smislu in v povezavi z barvno komponento dediščine. Ta je obravnavana z vidika točnosti, natančnosti in enoznačnosti zabeležene informacije in z vidika vpliva načrtovanja na ustreznost in uporabnost podatkov o njej. Članek se zaključuje z razmislekom o lastnikovi vlogi pri ohranjanju arhitekturne kulturne dediščine in dokumentacije o njej.

Abstract

This article presents the attitude towards color as an element of architectural cultural heritage in the context of the legislative requirements, from the standpoint of practice, and in the perspective of international charters, conventions and other doctrinal texts. It highlights the questions of the valuation of documentation as a component of heritage, and the importance of its conservation and upgrading during the entire lifetime of heritage. Next, the measurement of color, the technological background of digital photography, high dynamic range imaging and laser scanning for recording the color information on heritage are presented. It was established that there is no technological barrier for recording information on colors. There are certain limitations in the interpretation and further reproduction of the recorded information. However, the gap between the common understanding of and regard for the importance and the declared value of heritage with its color component on the one hand and the contents of stored documents about color on the other hand is more important. The debate is thus extended to the international principles and practice of documenting the heritage in the broad sense and in connection with its color component. This is discussed in terms of accuracy, precision and singularity of the recorded color information and the impact of planning on the relevance and usefulness of the data about it. The article concludes with a reflection on the owner's role in preserving the architectural and cultural heritage and its documentation.

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1. Uvod

Eno izmed osrednjih opravil pri celovitem ohranjanju kulturne dediščine je dokumentiranje. Gre za proces, na osnovi katerega se lahko prepoznata pomen in vrednost dediščine. Vrednotenje dediščine pa se odraža v dokumentaciji o njej. Pogojeno je s trenutkom, ko je bila vrednost dediščine prepoznana, s ponavljanjem beleženja pa se spremljajo njene lastnosti skozi čas.

V praksi pri pripravi na posege na dediščini na eni strani nastajajo novi dokumenti, na drugi pa se odpira vprašanje dostopnosti in uporabnosti obstoječega gradiva. Beleženje stanja (kaj, kako natančno beležiti/spremljati ...) je odvisno od razpoložljivih virov, izbor metode pa vsak s svojega vidika pogojujejo lastnik, konservator in projektant. Odločitev ni nujno vezana na vrednotenje ali pomen dediščine. Ne glede na izbrano metodo morajo rezultati izpolniti tri ključne zahteve: dolgoročna berljivost izdelanega gradiva, možnost nadgradnje in ponovne interpretacije izvornih podatkov ter preprosto upravljanje izdelkov za končnega uporabnika.

V članku se preverjata pomen in vrednost barvnega tona gradbenih površin v procesu ohranjanja dediščine. Z vidika zakonodaje, mednarodnih dokumentov, dokumentiranja in s tem povezanega tehnološkega razvoja, ohranjanja enoznačnosti informacije skozi čas ter drugih dejavnikov je bil z različnih zornih kotov raziskan odnos družbe do barve.

Glavni namen članka je opozoriti na vrzel v razumevanju in upoštevanju vzročno-posledične povezave med vrednotenjem dediščine in vsebino dokumentacije o njej. Namen članka je tudi okvirno prikazati merjenje barv, tehnološko ozadje digitalne fotografije, fotografiranje z velikim dinamičnim razponom in možnosti zapisa tako merske informacije kot informacije o barvi z metodami laserskega skeniranja. Rezultati dokumentiranja, pridobljeni s temi metodami, so za nadaljnjo uporabo, nadgrajevanje, dopolnjevanje, vključevanje v druge zbirke podatkov, analiziranje in raziskovanje primernejši kot rezultati, pridobljeni z drugimi metodami. Z njihovo uporabo se zmanjša možnost napačne interpretacije.

1. Introduction

One of the key tasks in the overall preservation of the cultural heritage is cultural heritage documentation. It is a process, on the basis of which the importance and the value of heritage are recognized. In addition, the value of heritage is reflected in the documentation relating to it. It depends on the moment when the value was recognized. Its properties are monitored over time by repetitive recording.

In practice, in preparations for heritage interventions on one hand new documents are created and on the other there appears the question of their accessibility and usability. Recording (what to record, how precisely it has to be done ...) depends on the available resources; the owner, conservator and design engineers influence the selection of the method, each from their own point of view. The decision is not necessarily tied to the meaning and value of heritage. Irrespective of the method, the results must meet three key requirements: a long-term readability of the produced documents, the possibility of upgrading and re-interpretation of the original data, and easy management of the results for the end user.

In the article the significance and the value of the color tone of building surfaces in the process of heritage conservation have been checked. The attitude towards color was verified from different angles – in terms of legislation, international documents, documentation and recording with the related technology development, and the conservation of the singularity of information over time.

The main purpose of this article is to draw attention to the existence of gaps in understanding and considering the importance of the cause and effect relationship between the heritage value and the contents of the documentation relating to it. The purpose of this article is also indicative display of color measurement, technological background of digital photography, high dynamic range imaging and the possibility of recording dimension and color information with the laser scanning method. The recorded data obtained with the listed methods are more suitable for further use,

upgrading, updating, integration with other databases and for analysis and research than those obtained by other methods. With their use the possibility of future misinterpretation is reduced.

1.1. Attitude towards Colors

When reviewing local publications in the field of conservation it can be established that Slovenian authors take no specific stance towards color. Studies revolve around composition, iconography, contrasts between light and dark, with the emphasis on painting. In the past, professionals believed that the architectural history and monumental value of an object are always revealed best during renovation. The method of research was to a large extent invasive and loss of the original substance was common. Color tones of unpainted facades were not at the top of the list of values to be protected on a particular monument. In the past conservation profession or perhaps the whole society placed no special emphasis on the color layers. The opus of the architect Le Corbusier has not yet been entered on the World Heritage List, despite efforts to do so, due to lack of "evidence of the original exterior colors in many buildings, such as the Villa Savoye" [ICOMOS, 2009: p. 137]. In 2011 evaluators assessed that the "conditions of integrity and authenticity for the series have not been fully justified and for individual sites, the conditions of authenticity and integrity have only been partly met" [Ibid.].

Colors play a certain role in architecture. Current standpoints of the profession and the public can be deduced by monitoring the media, in particular related to the issues of spatial planning and the economic crisis. The trend of return to existing condition can be noticed. Systematic professional regulation is obviously needed and will have a positive impact on the management of the architectural heritage (hereinafter: heritage). International experience shows that to a large extent the heritage protection (approximately thirty thousand units in the Slovenian registry) is regulated very well by spatial planning legislation. Current legal protection mechanisms already allow conservator supervision over planning and interventions. Of

1.1. Odnos do barve

Pri pregledu domačih publikacij s področja konservatorstva je mogoče ugotoviti, da se slovenski avtorji do barve ne opredeljujejo. Študije se sučejo okoli kompozicije, ikonografije, kontrastov med svetlim in temnim, večji poudarek je na slikarstvu. V preteklosti je veljalo, da se stavbna zgodovina in spomeniška vrednost objekta vedno najbolje razodeneta ob obnovi. Način raziskav je bil pretežno invaziven in ni bilo redko, da se je prvotna substanca izgubila. Barvni toni neposlikanih fasad niso bili na vrhu lestvice vrednot, ki bi jih pri posameznem spomeniku najbolj varovali. Tudi druge stroka ali celo vsa družba v preteklosti ni namenila posebnega poudarka barvnim slojem. Opus arhitekta Le Corbusiera zaradi manjkajočih dokazov o prvotnih barvah pri številnih stavbah, med njimi pri vili Savoye, kljub prizadevanjem še vedno ni vpisan na seznam svetovne dediščine. Ocenjevalci so v letu 2011 presodili, da ni popolnoma zagotovljena in izkazana avtentičnost nekaterih stavb [ICOMOS, 2009: str. 137].

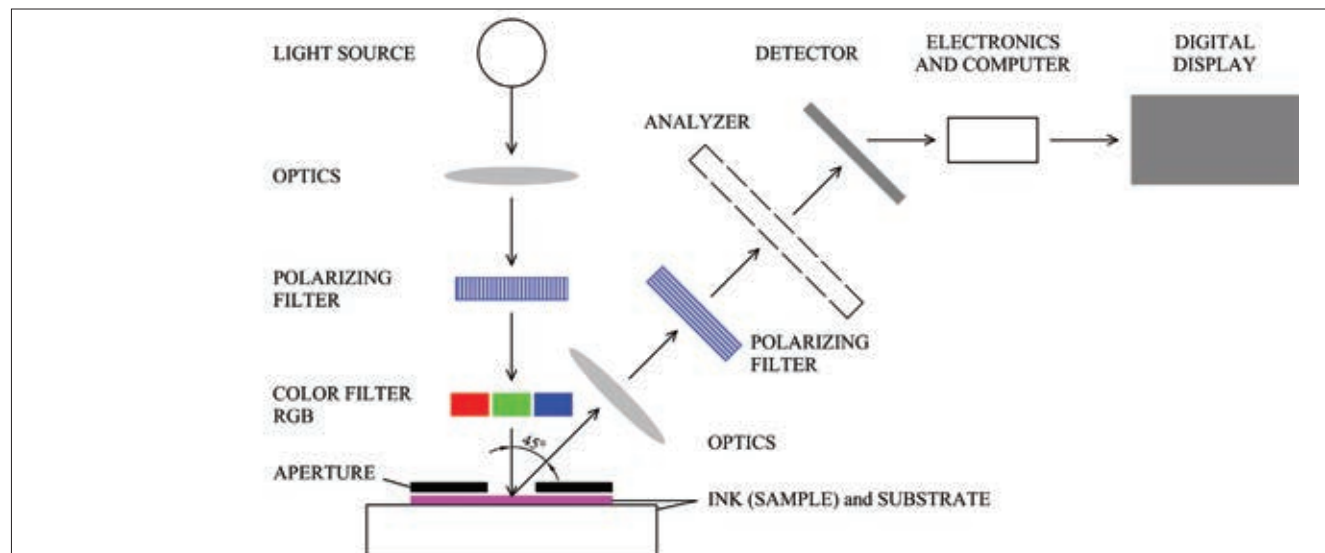
Barve imajo v arhitekturi svojo vlogo. O tem, kakšno je danes stališče stroke in javnosti, je govora v medijih v povezavi s problematiko urejanja prostora in ekonomske krize. Opazen je trend vračanja k obstoječemu. Sistemska strokovna ureditev je potrebna in bo v primeru ustreznega pristopa pozitivno vplivala na ravnanje z arhitekturno dediščino (v nadaljevanju dediščina). Praksa v tujini kaže, da je velik del varovanja dediščine (v slovenskem registru

je približno trideset tisoč enot) zelo dobro urejen že s prostorsko zakonodajo. Naša današnja ureditev pravnih mehanizmov zaščite, ki jih uporablja tudi konservatorska stroka, omogoča nadzor nad potekom načrtovanja in posegov. Vse rešitve in orodja je seveda iz finančnih in pravnih razlogov pogosto težko izkoristiti. Obenem se pojavlja kritika, ki je pogosto zasnovana na napačnih predpostavkah ali je subjektivna. Do trdno teoretično in strokovno utemeljene kritike je sicer treba zavzeti stališče in prevzeti odgovornost. A v današnji poplavi informacij, pripomočkov, orodij in svetovalcev je največja težava, kako ju objektivno razločevati. In ena izmed nalog strokovnjaka je prav ta, da sogovorniku pomaga – da mu jasno predstavi, kaj vidi, dela in zaznava. In morda je tu del odgovora. Na strani stroke je, da podpira, nagraduje, promovira dobro urejanje prostora, primerno ravnanje z dediščino in v detajlu tudi paleto ustreznih barvnih tonov. Tu pa nastopi večšina retorike in komuniciranja, na osnovi katere bo nepoučena kritika izgubila svojo moč.

1.2. Dediščina, podatki in vrednotenje

Za oblikovanje/nastanek arhiva so potrebni rezultati pomembnega sklopa opravil, dejavnosti, ukrepov in jasno izražena volja do njihovega izvajanja [Letellier, Schmid, & LeBlanc, 2007]. Dokumentacija kot rezultat beleženja in dokumentiranja pa je še vedno prepuščena posameznikom, in to kljub temu, da gre za eno izmed poglavitnih opravil

Slika 1: Shema refleksijskega denzitometra. Rezultat je debelina plasti barve, enaka optična gostota ne pomeni nujno enake barve (ilustracija: Potočnik, I., 2015).
Figure 1: Scheme of a reflection densitometer. The result is the thickness of paint layers, the same optical density does not necessarily mean the same color (Illustration: Potočnik, I., 2015).



course, all solutions and tools are difficult to exploit, often due to economic and financial reasons. At the same time, criticisms are subjective and sometimes based on false assumptions, although it is necessary to take a stand towards and responsibility for well-founded criticism. Nowadays, in the flood of information, utilities and consultants, the biggest problem is how to separate them. One of the tasks of the experts is to help the interlocutor: they need to present clearly what they see, perceive and do. Perhaps a part of the answer lies herein. The task of the profession is to support, reward, and promote good spatial planning, appropriate management of cultural heritage and the range of appropriate color tones in the detail. This is where the art of rhetoric and communication comes into play. With this skill, any uneducated criticism will lose its power.

1.2. Heritage, Data and Evaluation

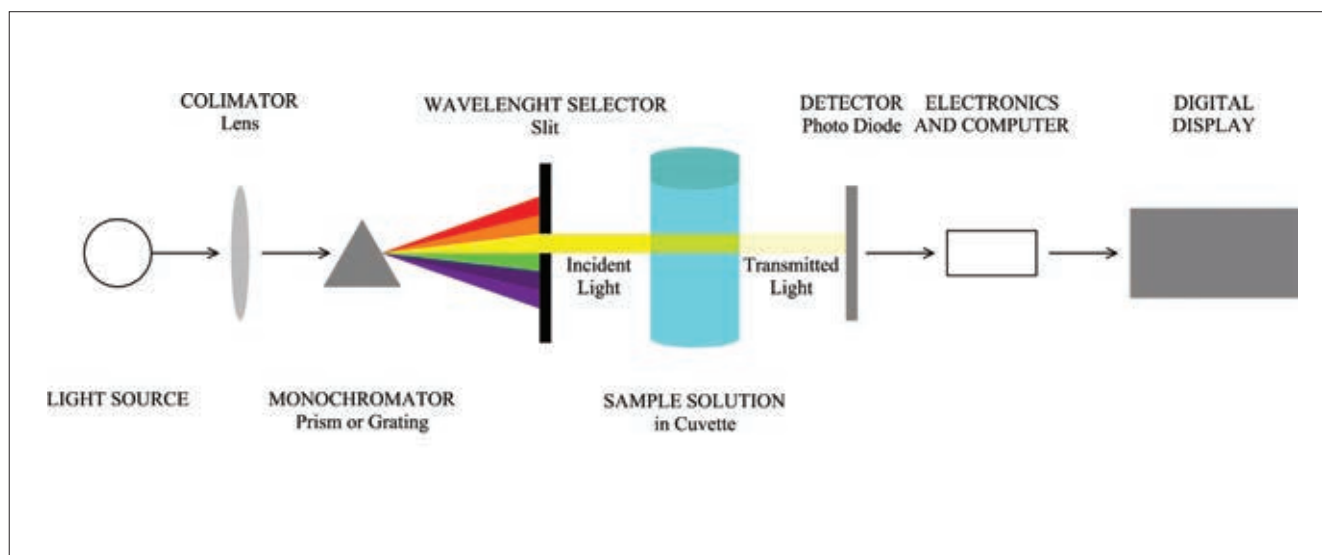
In order to create an archive results from an important set of tasks, activities, actions and a clearly expressed will to implement them are needed [Letellier, Schmid, & LeBlanc, 2007]. Heritage documentation as a result of recording and documenting is still left to individuals, despite the fact that documenting is one of the key tasks in the process of heritage conservation. The significance and the value of heritage are recognized in the process of documenting. By using the obtained data it is possible to adopt a professional decision, and check and analyze it using scientific

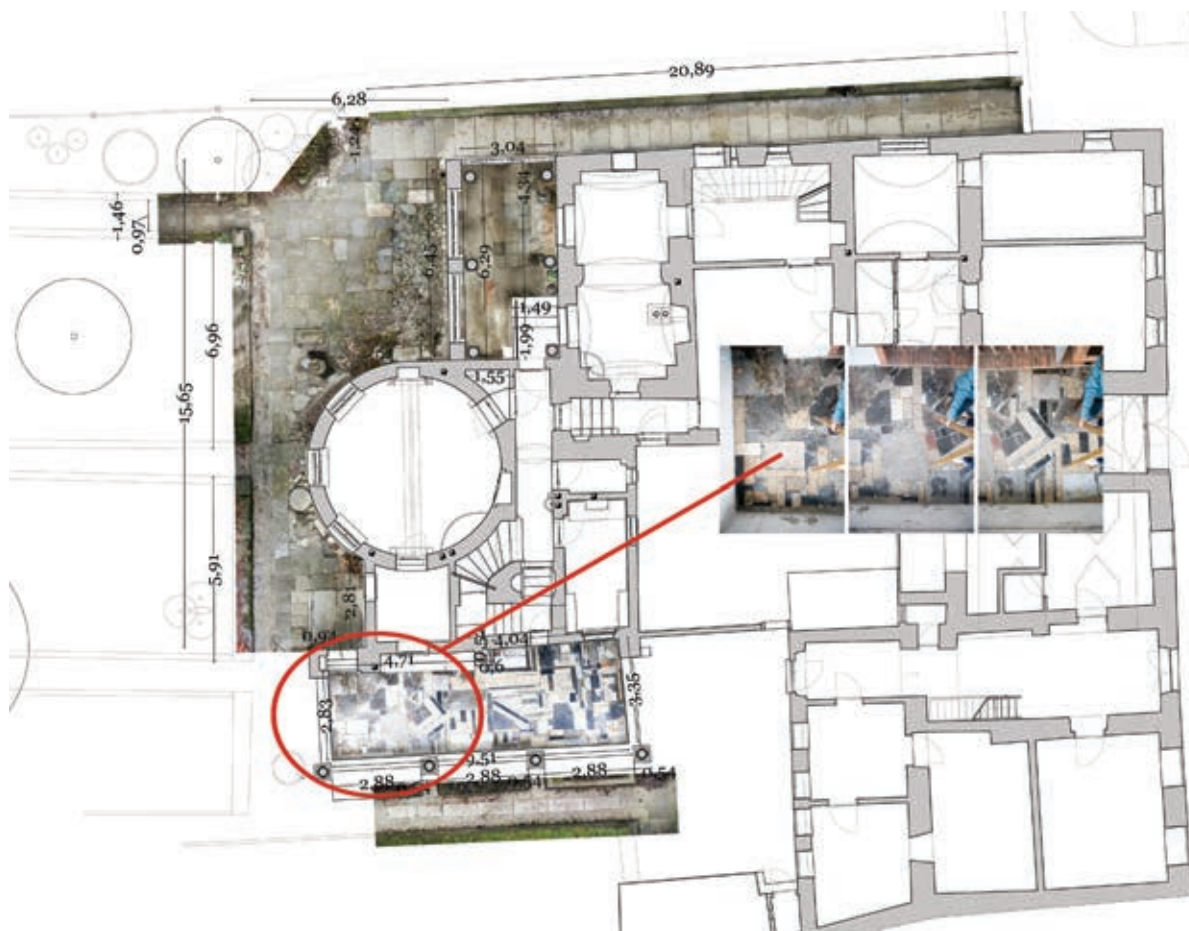
methods [Ibid.], since recording is "one of the principal ways available to give meaning, understanding, definition and recognition of the values of the cultural heritage" [ICOMOS, 2014: p. 71]. Operational practice in the protection and conservation of cultural heritage reveals a different story. Often, it is based more on the available resources than on careful consideration. With today's technological support, there are numerous methods available. In addition to the sampling and recording, there are geo-radar, thermographic imaging with analysis of the results, laboratory researches and analyses of samples, tests on new and old materials, monitoring of the situation using different devices and in different scales; there is also the possibility to synthesize all of the above methods and their presentation in writing or otherwise.

In Slovenia, the process of documenting is enacted. In addition to the Cultural Heritage Protection Act, documentation is prescribed also by the Rules on Conservation Plans (CP). Their content and form are set out, and the documentation is placed in the chapter on understanding the site and its values. The Rules [2009: Annex 1, 01-6.8] lay down that the records about the current condition of a building are "extracts from the cadastres, surveying and architectural imagery /.../ basic photo documentation sheets /and/ a list of other documents." Documentation is, as stated in the Cultural Heritage Protection Act [2008: 3rd Art.], "the collection, compilation and storage of

Slika 2: Shema merjenja faktorja odboja po principu monokromatorja. Izmerjena vrednost je količina svetlobe, ki jo objekt odbija pri izbranih intervalih. Rezultati se izrazijo kot triobmočne vrednosti X, Y, Z in kot kromatične koordinate x, y, Y (ilustracija: Potočnik, I., 2015).

Figure 2: Scheme of measuring the reflection factor according to the principle of the monochromator. The measured value is the amount of light reflected by an object at selected intervals. The results are expressed as tristimulus values X, Y, Z, and as chromaticity coordinates x, y, Y (Illustration: Potočnik, I., 2015).





Slika 3: Arhitekturni posnetek stanja pritličja Plečnikove hiše v Ljubljani, dvodimenzionalni vektorski načrt z rastrskim mozaikom – načrtom zunanjih tlakov (ni v merilu). Mozaik je izdelan z obdelavo večjega števila posameznih fotografij (načrti: Potočnik, I., Bulc, J., Dobrina, D., 2010; Potočnik, I., Sušnik, E., 2014, ZVKDS, Center za konservatorstvo, Restavratorski center; ilustracija: Potočnik, I., 2015).

Figure 3: Ground floor of Plečnik's house in Ljubljana. Two-dimensional vector plan with raster mosaics – disposition of stone pavement (not to scale). The mosaics are made from a large number of single photos (plans: Potočnik, I., Bulc, J., Dobrina, D., 2010; Potočnik, I., Sušnik, E., 2014, ZVKDS, Conservation centre, Restoration centre; illustration: Potočnik, I., 2015).

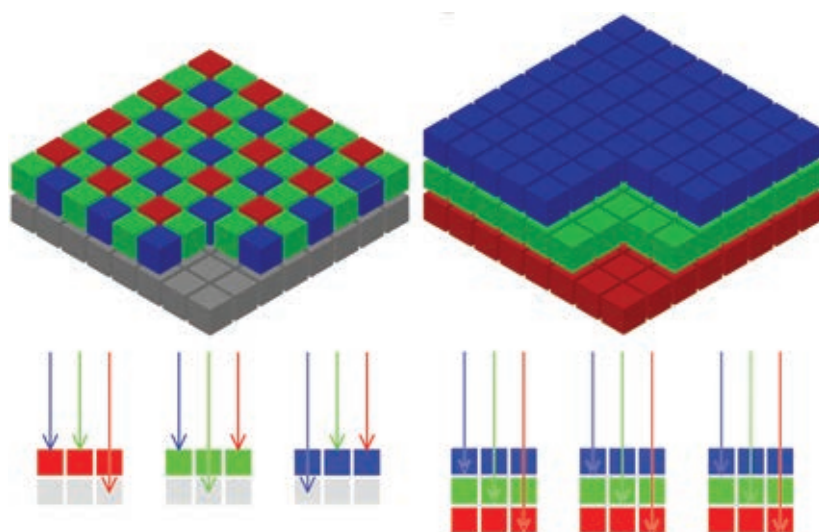
pri ohranjanju dediščine. V procesu dokumentiranja se prepoznata pomen in vrednost dediščine, s pomočjo pridobljenih podatkov se sprejemajo strokovne odločitve, ki so preverljive z znanstvenimi metodami [prav tam], saj je to "eden od glavnih razpoložljivih načinov osmišljanja, razumevanja, definiranja in priznavanja vrednot kulturne dediščine" [ICOMOS, 2014: str. 71]. Operativna praksa varovanja in ohranjanja nepremične kulturne dediščine kaže drugačno sliko. Prepogosto je bolj vezana na razpoložljive vire kot na tehten premislek. A tehnologija danes podpira in omogoča izbiro različnih metod. Poleg vzorčenja in zapisovanja so tu georadar, termografske kamere z utečeno obliko analize rezultatov, laboratorijske preiskave in analize vzorcev, testiranje novih in starih materialov, spremljanje stanja z različnimi napravami in v različnem obsegu (monitoring): vse naštetu je mogoče združiti ter rezultat pisno ali drugače predstaviti.

V Sloveniji je dokumentiranje uzakonjeno. Poleg zakona o varstvu kulturne dediščine ga predpisuje tudi

pravilnik o konservatorskem načrtu. Njegova vsebina in oblika sta določeni, dokumentacija pa je umeščena v poglavje o razumevanju spomenika in njegovih vrednot. V pravilniku [priloga 1, 01-6.8] je navedeno, da je dokumentacija stanja "izvleček iz katastrov, izvleček iz geodetskega in arhitekturnega posnetka, /.../ osnovna fotodokumentacija stanja, /.../ seznam druge dokumentacije in drugo". Dokumentiranje pa je, kot piše v zakonu o varstvu kulturne dediščine [2008, 3. čl.], "zbiranje, urejanje in hranjenje podatkov o dediščini, njenih vrednotah, stanju, lokaciji". Zakonski podlagi za izdelavo konservatorskega načrta in dokumentacije o dediščini kot njegovega sestavnega dela dajejo še večjo težo zaveze in spodbude v mednarodnih listinah, kot sta Beneška listina iz leta 1964 [ICOMOS, 2003] in Načela beleženja spomenikov, skupin objektov in območij iz leta 1996 [ICOMOS, 2014]. In čeprav je dokumentiranje opredeljeno kot obvezen postopek pri ohranjanju dediščine, je še vedno opazna vrzel. Vedenje o dediščini kljub teoretični

Slika 4: Shemi zajema barvne informacije v slikovnih (optoelektronskih) senzorjih. V običajnih sistemih (levo) so rdeči, zeleni in modri barvni filtri na enem sloju foto detektorjev (fotodiod) razporejeni v mozaičnem vzorcu. V vsaki točki se zabeleži le ena barva. Ti senzorji zabeležijo 50 % zelene in po 25 % rdeče in modre svetlobe. Senzorji na osnovi tehnologije Foveon X3 imajo v silikon vstavljene tri vrste fotodiod. Ker silikon v različnih globinah absorbira različno valovno dolžino svetlobe, vsaka vrsta zabeleži drugo barvo. Ti senzorji v vsaki točki zabeležijo vse tri barve (ilustracija: Potočnik, I., 2015).

Figure 4: Schemes of capturing the color information in the image (optoelectronic) sensors. In conventional systems (left), the red, green and blue color filters are arranged in a single layer of photo detectors (photodiodes) in a tiled mosaic pattern. The filters let only one wavelength of light through, so each pixel records only one color. These types of sensors capture 50% of green and only 25% of red and blue light. Sensors based on Foveon X3 technology have three layers of photodiodes inserted into the silicone. Since silicone absorbs different wavelengths of light at various depths, each layer of photodiodes records a different color. These types of sensors can capture red, green and blue light at every pixel (illustration: Potočnik, I., 2015).



data on heritage, its values, condition and location." Commitments and incentives in international instruments, such as the Venice Charter [ICOMOS, 2003] and the Principles for the recording of monuments, groups of buildings and sites [ICOMOS, 2014], only emphasize the legal basis for the production of CP. However, although the documenting is mandatory component in the procedure of preservation of cultural heritage, a gap is still noticeable. Knowledge about heritage is not always an integral part of all conservation activities, regardless of theoretical awareness. In the given situation, and without understanding the real needs, the strategy for the preparation of documents and their evaluation will not be soon approved or widely accepted. The same outcome can be expected for the systematic complementarity of the missing records. It happens too often that some photos, architectural sketches, or orthogonal architectural plans without any details are the only results of recording the actual condition. These records are used in the planning process as a basis for further work, without any upgrade. The mere proclamation of a monument or expert identification of elements that are worthy of protection and preservation for future generations are not an adequate basis either in basic maintenance, preservation and restoration of buildings and their parts, let alone in the preservation of authentic substances, including color and narrative value of heritage.

In view of all the open tasks, it might be a good first step to become aware

that good documentation and records are a precious heritage for the future. "Preparing a plan for long-term consistent and systematic work on the heritage, important for the collective memory, is a necessity." [Pirkovič, 1993: p. 110] The second step is the acceptance and the awareness of the fact that the heritage recording is not and cannot be final as long as it exists. Upgrading and updating is necessary and inevitable, since the condition has to be recorded before, during, and after any minor and major interventions. Therefore, it is necessary to be adequately prepared in advance, especially as far as digital data are concerned. Because of the technological development there is an increasing number of different tools available, allowing the acquisition of previously hidden information.

One must not forget the management of all the records acquired: without suitable storage, adequate links between the data, data and software updates and accessibility, primarily the cultural heritage and as a consequence the whole society are damaged. Digital documents present a major problem; their loss or destruction will, if no action is taken, leave a great void in historical memory about present time. In practice, there is no single solution, because this field is still relatively unexplored. Commitments have been taken up on the conservation of cultural heritage. It is imperative to continue the collection, recording and storing of all the information about it. Depending on the circumstances, the tasks must be done as comprehensively as possible. When the documentation of the heritage is comprehensive, complete, and consistent, it becomes its inseparable part and thus heritage in itself; therefore, in all respects, something that we should treat with care.

2. Methods

2.1. Color Measurement

While the beginnings of the numerical description of colors reach back to the first quarter of the 19th century, "it was only in the 1980s that the computer technology enabled the development of three-area photometers and spectrophotometers for describing

ozaveščenosti ni vedno integralni del vseh dejavnosti ohranjanja dediščine. V teh razmerah in brez razumevanja dejanskih potreb tudi strategija za pripravo dokumentov in njihovo vrednotenje ne bo kmalu potrjena ali širše sprejeta. Enak izid je mogoče pričakovati glede sistematičnega dopolnjevanja gradiva. Še prepogosto pri beleženju stanja nastane le nekaj fotografij, arhitekturna skica stanja ali ortogonalni arhitekturni načrt brez vseh detajlov in podobno. Ti dokumenti se iz različnih vzrokov nikoli ne nadgradijo, a se pri pripravi potrebne projektne dokumentacije uporabijo kot osnova za nadaljnje delo. Zgolj razglasitev za spomenik ali strokovno prepoznanje elementov, ki jih je vredno varovati in ohranjati za prihodnje rodove, ni ustrezna podlaga niti za osnovno vzdrževanje, ohranjanje in obnavljanje stavb in njihovih delov, kaj šele za ohranitev/ ohranjanje avtentične substance, vključno z barvo in pričevalnostjo dediščine.

Ob vseh odprtih nalogah je morda prvi korak zavedanje, da je dobra dokumentacija dragocena dediščina za prihodnost in da je nujno izdelati načrt dolgoročnega doslednega in sistematičnega dela na dediščini, ki je pomembna "za kolektivni spomin" [Pirkovič, 1993: str. 110]. Drugi korak je sprejetje in ponotranjenje dejstva, da dokumentacija o stanju dediščine, dokler ta obstaja, ne more biti dokončna. Nujno in neizbežno jo je treba nadgrajevati, saj je treba stanje zabeležiti pred in med manjšimi in večjimi posegi ter po njih, na kar je treba biti posebno pri digitalnih podatkih ustrezno pripravljen. Tu je še tehnološki razvoj, zaradi katerega je na razpolago vedno več različnih orodij, s katerim je mogoče pridobiti informacije, ki so v preteklosti ostale skrite.

Nedopustno je pozabiti na ravnanje z vsemi pridobljenimi podatki: brez primerne hrambe, povezave med njimi, posodabljanja in dostopa je v prvi vrsti oškodovana dediščina in z njo vsa družba. Največja težava so digitalni podatki, njihova izguba ali uničenje bo brez ustreznih ukrepov v zgodovinskem spominu pustilo veliko praznino o našem času. V praksi enoznačne rešitve ni, saj je tudi v svetu to področje še dokaj neraziskano.

Sprejete so bile zaveze o ohranjanju dediščine. Obvezno je treba nadaljevati zbiranje, izdelavo in hranjenje informacij o njej. To pa mora biti glede na okoliščine izvedeno kar se da celovito. Ko je dokumentacija o dediščini celovita, popolna in skladna, postane njen neločljivi del in s tem tudi sama dediščina. Z dediščino pa naj bi v vseh pogledih ravnali skrbno.

2. Metode

2.1. Merjenje barv

Medtem ko segajo začetki numeričnega opisovanja barv v prvo četrtino 19. stoletja, je "šele v osemdesetih letih 20. stoletja računalniška tehnologija omogočila razvoj triobmočnih fotometrov in spektrofotometrov za opisovanje barvnih učinkov" [Kumar, 2008: str. 91]. Denzitometer je naprava za merjenje optične gostote, uporablja se v grafični pripravi in v tisku. Optična gostota je logaritemska (nelinearna) vrednost brez enote. Vrednost je definirana na osnovi razlike v moči barvnega dražljaja med vpadno in prepuščeno oziroma z vzorca odbito svetlobo, zato je z napravo posredno izmerjena samo njegova svetlost. Kolorimeter ali triobmočni fotometer analizira barvni dražljaj podobno kot človeško oko, običajno ima le en fotoelement (fotodiodo), vendar po en barvni filter za modri, zeleni in rdeči del spektra. Meri svetlobno energijo, ki jo objekt odbija, prepušča ali absorbira. Spektrofotometer pri izbranem koraku analizira spektralno sestavo svetlobe (barvnega dražljaja). S tem nastane spektrofotometrična krivulja, ki je uporabna za vsakršne barvnometrične preračune, in se navezuje na barvni model CIE. Ker se vrednosti ne pridobijo s filtri, marveč iz vsega spektra, je absolutna natančnost spektrofotometrov zelo visoka [Kumar, 2008].

2.2. Tehnološko ozadje digitalne fotografije

Ne glede na okoliščine in na zadrego pri nadaljnji uporabi ali reprodukciji gradiva, je za dokumentiranje dediščine že iz preteklosti poznana fotografija. Z razvojem novih tehnologij se njena uporabna vrednost tako za upodobitve kot za pridobivanje merskih podatkov z rektificirano fotografijo,

stereofotogrametrijo, fotomozaiki in drugimi tehnikami samo povečuje.

O zgodovinskem razvoju fotografije je bilo veliko napisanega že drugod. V tem članku je zanimiva predvsem njena zmožnost ohranjanja in prenosa podatkov in informacij o barvi. V obdobju črno-belih slik je bilo to izključeno. Na črno-belih fotografijah, filmih ali steklenih ploščah so motivi le v akromatičnih tonih. Če pa je poleg fotografije ohranjen tudi natančen opis in morda še vzorec, se ugibanja o barvni podobi nagnejo v območje védenja. Obstoj, ohranjenost in dostopnost analognih arhivskih dokumentov in sistematika nastajanja se od primera do primera razlikujejo. Pri digitaliziranju obstoječih kot tudi pri nastajanju in hranjenju novih dokumentov le v digitalni obliki pa umanjka splošna zavest o njihovi minljivosti. "Redki dokumentacijski centri sledijo izzivom ohranjanja elektronskih zapisov, čeprav je večina danes izdelane dokumentacije o dediščini v digitalni obliki." [Letellier, Schmid, & LeBlanc, 2007: str. 46]

Analogna fotografija je rezultat fizikalno-kemijske reakcije svetlobno občutljivega sloja na nosilcu (filmu) s svetlobo. Izdelava barvne fotografije je precej bolj zapletena in tehnološko zahtevnejša kot izdelava črno-bele. V obeh primerih so najmanjši fizični delci zapisa naključno porazdeljena fotografska zrna, in zapisana vsebina tudi pri velikih povečavah daje vtis zveznosti. Tehnologija digitalne fotografije pa je bistveno drugačna. Tu gre za diskretizacijo in kvantizacijo zveznega signala – svetlobe. Diskretizacija pomeni, da zvezni signal spremenimo v diskretne vrednosti, kvantizacija pa je določitev konkretnih vrednosti signala v diskretnih točkah. Pri tem je treba upoštevati teorijo vzorčenja oziroma Nyquist-Shannonov teorem [Luhman, Robson, Kyle, & Boehm, 2014: str. 131–134; Triglav, Crosilla, & Kosmatin Fras, 2010: str. 403–416], ki pravi, da mora biti frekvenca vzorčenja (digitalizacije) signala najmanj dvakratnik najvišje frekvence originalnega (analognega) signala, da lahko iz vzorčenega gradiva zadovoljivo rekonstruiramo izvorni zapis. Ta teorem je bil v osnovi namenjen digitalizaciji zvočnih (avdio) signalov, a je uporaben tudi pri digitalnih slikah, saj imajo v

color effects" [Kumar, 2008: p. 91]. Densitometer is a device for measuring optical density used in the graphic preparation and in the press. Optical density is a logarithmic (non-linear) value without unit. It is defined only based on the difference in the power of a color stimulus between the incident and reflected light from the sample, so it is used indirectly to measure the brightness of a sample. Three-area photometer or colorimeter analyses the color stimulus much like the human eye, and it usually has one photodiode, but three color filters, i.e. for blue, green, and red part of the spectrum. It measures the light energy reflected, transmitted, or absorbed by an object. Spectrophotometer analyses the spectral composition of light (color stimulus) in the selected step. This forms a spectrophotometric curve, which is useful for any colorimetric calculations and refers to the CIE color model. The value is not obtained by means of filters but from the entire spectrum; therefore, the absolute precision of spectrophotometers is very high [Kumar, 2008].

2.2. Technological Background of Digital Photography

Regardless of the circumstances and the predicament about the future use or reproduction of materials, photography is well known already from the past for recording heritage places and objects. With the

development of new technologies, its value for depictions and for the acquisition of measurement data with rectified photography, stereo photogrammetry, photo mosaics and other techniques is only increasing.

Many writers have already written profusely about the historical development of photography. What is particularly interesting in this article is the emphasized ability of photographs to preserve and transfer data and information on color. During the black-and-white picture period, this was ruled out. In the black-and-white photographs, films or glass panes, the motives are only in achromatic tones. If, beside photos, an accurate description and perhaps even a sample are stored and preserved in the archive, speculations about the color are inclined towards the area of knowledge. The existence, preservation and availability of analogue archival documents and systematic formation differ from case to case. In the digitization of existing, as well as in the creation and storage of new documents only in digital form, there is a general lack of awareness of their transience. "Few documentation centers are prepared to meet the new challenge of preserving electronic records, although digital files have become the main format in which heritage documentation is delivered today" [Letellier, Schmid, & LeBlanc, 2007: p. 46].

Analog photography is the result of physicochemical reaction of

Slika 5: Multispektralno slikanje: radiografija (RTG), ultravijolična fluorescenca (UVF), vidna svetloba (VIS) in infrardeča fluorescenca (IRF) na primeru slike Marija s sv. Avguštinom in sv. Filipom Benizijem iz nekdanje cerkve servitskega samostana v Kopru. Tovrstno snemanje omogoči vpogled v avtorjev način slikanja, določa obseg obstoječih preslikav in preteklih konservatorsko – restavratorskih posegov (fotografije: Hirci, A., UVF, VIS, IRF, Narodna galerija; Fister, S., RTG, ZVKDS Center za konservatorstvo, Restavratorski center, dokumentacija Oddelka za štafelajno slikarstvo, ZVKDS CK RC).

Figure 5: Multispectral imaging: radiography (RTG), ultraviolet fluorescence (UVF), visible light (VIS) and infrared fluorescence (IRF) in the case of the painting St. Mary with St. Augustine and St. Filip Benizi from the former church of the Servite convent in Koper. Such recording enables an insight into the artist's way of painting, determines the range of existing repaintings and historical conservation - restoration procedures (photographs: Hirci, A., UVF, VIS, IRF, National Gallery; Fister, S., RTG, IPCHS, Conservation Centre, Restoration Centre, 2007. Easel Painting Department Archive, IPCHS, Conservation Centre, Restoration Centre, Ljubljana).



Slika 6: Fotografranje z razširjenim tonskim razponom na primeru trga Navona v Rimu. Na združeni fotografiji so podrobnosti o prostoru in barvah jasnejše kot na posameznih fotografijah. Zaradi dolgih ekspozicij pri prvotnih posnetkih trga (22 s, 42 s, 194 s) so na združeni fotografiji tudi sence ljudi in avtomobilov (Potočnik, I., 2009, 2015).

Figure 6: Expanded tonal range imaging of Piazza Navona in Rome. In merged photograph, the details about the location and colors become clearer than in individual photos. Because of the long exposition in the original footages of the market (22 s, 42 s, and 194 s) shadows of people and cars are present on the merged photo (Potočnik, I., 2009, 2015).



a light-sensitive layer on the film (medium) with the light. Making of color photography is much more complex and technologically challenging than making black-and-white photos. In both cases, the smallest physical particles are photographic grains, which are randomly distributed, and the recorded content gives the impression of continuity even at high magnification. The technology of digital photography is fundamentally different. Above all, it is a discretization and quantization of the continuous signal – light. Discretization is the process of transferring continuous signals into discrete values. Quantization is determining the actual value of the signal at discrete points. The sampling Nyquist-Shannon theorem [Luhman, Robson, Kyle, & Boehm, 2014; Triglav, Crosilla, & Kosmatin Fras, 2010], which says that the sampling (digitizing) signal should be at least twice the highest frequency of the original (analog) signal in order to satisfactorily reconstruct the original record from the sample, should be taken into account. This theorem was intended primarily for the digitization of sound (audio) signal, but it can also be used with digital images, which have a raster format and pre-set pixel size. Simplified, this means that for 1 mm large details the calculated size of a pixel should be at least 0.5 mm to avoid, due to the analog-to-digital conversion, losing the details. Quantization is the process of identifying radiometric range of digital values - it is a process of reducing the number of different colors used in the image. The most common is an 8-bit format for one spectral channel, which allows separation of only 256 different values (28). Powerful devices today are capable of much higher values, up to 216.

In relation to digital photographic technology, at least the basic operation of image sensors should be understood [Luhman, Robson, Kyle, & Boehm, 2014: pp. 169–181]. Image sensors consist of a large number of light-sensitive detectors (photodiodes) in the form of a line or matrix a semiconductor module (microchip). Each detector (sensor element) generates an electrical charge, which is proportional to the amount of incident light thereon.

The sensor is constructed so that the electric charge of each individual element can be transferred, processed and digitized. Electric charge has no color information; color results from placing a corresponding color filter that transmits only light of certain wavelength in front of a photodiode. For practical reasons, the entire spectrum of visible light is distributed and recorded in three regions: red, green and blue (RGB). Techniques of capturing color information in the image sensor are different. The most common is the use of a filter mask (for example the Bayer pattern) where each photodiode records only one color at a time. With the special prism mounted in front of the sensor, it is possible to deflect the incident light in three directions and three separate sensors, so that each records the entire image in a given region of the spectrum. Professional and expensive devices mainly use this mode. There is also a technology known as the Foveon X3 technology, where one sensor simultaneously records all three-color values. Details of the functioning of this technology are a trade secret, but some cameras already use it.

In addition to the visible part of the spectrum of electromagnetic waves it is possible with appropriate equipment to take advantage of the X-rays (0.01-10 nm), ultraviolet (UV-A, UV-B, UV-C, 200 to 380 nm) and near infrared (IR-A; 0.7–1.4 nm) radiation. In these photos, spectral signature analysis techniques can be used to obtain certain information invisible to the naked eye, e.g. layers beneath the surface, hidden defects, etc.

2.3. High Dynamic Range Imaging

In analog color images, it is possible to confirm without additional research that colors have changed over time. This applies to the negatives, positives, as well as slides. In digital images, there is another issue. Various sensors detect the color, brightness and other settings differently, independently of whether they are recorded in raw format (RAW) or have already been algorithmically modified. All this affects the quality of each photograph. Notwithstanding this, it is possible to upgrade pictures. Yan et al are exploring this area [Yan &

Rajan, 2008; Yan, Behera, & Rajan, 2010]. They are interested in the digital photograph's capability to store large amounts of information about the color and brightness of the architectural heritage. Their goal is to develop an affordable and effective method that will help record and document information about colors of interiors and exteriors. "With sampling, characterization and comparison of the color information, regardless of lighting effects, which is an essential characteristic of the final layer of the surfaces in the interior and exterior, we can accurately document only small sample areas, not the entire range of architectural surfaces" [Yan & Rajan, 2008: p. 238]. The method presented here has the advantage of being able to record color data of the entire surface. With the help of the spectrometer any part of the picture and the color of individual pixels can be defined in the color model CIELUV (CIE $L^*u^*v^*$) and thus uniquely determined.

The method is based on High Dynamic Range Imaging (HDR). HDR is a term from digital video processing, computer graphics and photography and generally relates to techniques for providing the extended tonal range that goes beyond tonal range achievable with a single exposure. This method is suitable in case of large differences in lighting (sun – shade); it is difficult to record the details detected by the human eye (which is more sensitive than today's digital sensors) in a single exposure. The basis is multiple shooting of the motive with different settings, while further processing and assembling of the footage can store more details through the entire tonal range.

2.4. Laser Scanner and Color

For simultaneous recording of both measurement data [Triglav, Crosilla, & Kosmatin Fras, 2010: pp. 403–416] as well as information on the color tone, a combination of camera and laser scanner is suitable. The processing of the data then requires powerful hardware, corresponding software, and a trained operator. The very term "laser scanner" is generic and usually refers to "a set of instruments that work on different bases in different environments and with different precision and accuracy" [Mills, Barber, & Andrews, 2011: p. 3]. The result

osnovi rastrsko obliko in določeno velikost slikovne točke (piksla). Poenostavljeno to pomeni, da mora biti na primer pri detajlih, ki so veliki 1 mm, velikost piksla v naravi 0,5 mm, da se zaradi analogno-digitalne pretvorbe ne izgubijo podrobnosti. Kvantizacija je proces za opredelitev radiometričnega razpona digitalnih vrednosti – gre za postopek zmanjševanja števila različnih barv, uporabljenih v sliki. Najbolj običajen je 8-bitni zapis za en spektralni kanal, ki omogoča ločevanje 256 različnih vrednosti (28). Zmogljivejše naprave danes zmorejo že precej višje vrednosti, tudi do 216.

Pri digitalni fotografski tehnologiji je dobro razumeti vsaj osnove delovanja slikovnih senzorjev [Luhman, Robson, Kyle, & Boehm, 2014: str. 169–181]. Sestavljeni so iz večjega števila na svetlobo občutljivih detektorjev (fotodiod), razporejenih v linije ali matriko na polprevodniškem modulu (mikročipu). Vsak detektor (element senzorja) ustvarja električni naboj, ki je sorazmeren s količino vpadne svetlobe. Senzor je zgrajen tako, da se lahko električni naboj vsakega posameznega elementa prenese, obdela in digitalizira. Električni naboj nima informacije o barvi; ustvari jo barvni filter pred fotodiodo, ki prepušča samo svetlobo določene valovne dolžine. Iz praktičnih razlogov se ves razpon vidne svetlobe razdeli in zajame le v treh območjih: rdečem, zelenem in modrem (RGB, iz angleških imen za barve: red, green, blue). Tehnike zajema barvne informacije

v slikovnih senzorjih pa so različne. Najpogosteje se uporabi filtrirna maska (na primer Bayerjev vzorec), kjer vsaka fotodioda naenkrat zabeleži le eno barvo. S posebnimi prizmami, nameščenimi pred senzorjem, se vpadna svetloba lahko preusmeri v tri smeri in na tri ločene senzorje, vsak pa zabeleži vso sliko v posameznem delu spektra. Ta način v glavnem uporabljajo profesionalne in drage naprave. Obstaja pa tudi tehnologija Foveon X3, kjer se v enem senzorju hkrati zabeležijo vse tri barvne vrednosti. Podrobnosti delovanja te tehnologije so poslovna skrivnost, se pa že uporablja v nekaterih fotoaparatih.

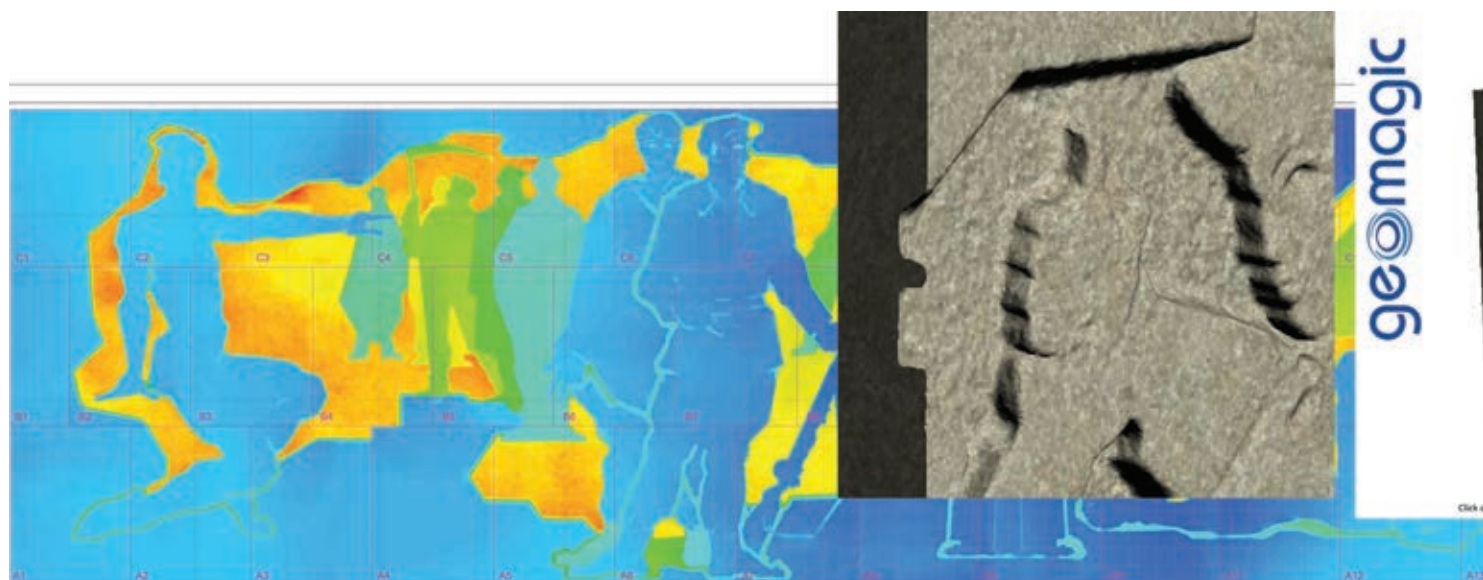
Poleg vidnega dela spektra elektromagnetnega valovanja je mogoče z ustrezno opremo izkoristiti tudi rentgenske žarke (0.01–10 μm) ter ultravijolično (UV-A, UV-B, UV-C; 200–380 μm) in bližnjeinfrardeče (IR-A) sevanje (0.7–1.4 μm). Pri takšnih fotografijah je mogoče uporabiti tehnike analize spektralnega podpisa za pridobitev nekaterih informacij, ki očem niso vidne, na primer o materialih, slojih pod površjem, prekritih poškodbah in podobno.

2.3. Fotografiranje z velikim dinamičnim razponom

Pri arhivskih analognih barvnih fotografijah je mogoče brez večjega raziskovanja ugotoviti, da so se barve skozi čas spremenile. To velja za negative, pozitive, tudi za diapozitive. Pri digitalnih posnetkih je vprašanje še drugje. Različni senzorji različno

zaznavajo barvo, osvetlitev in ostale nastavitve, in to neodvisno od tega, ali so posnete v golem (surovem) formatu zapisa fotografije (RAW) ali pa so že algoritemsko spremenjene. Vse to vpliva na kakovost posamezne fotografije. Ne glede na to, je mogoče fotografije nadgraditi. To področje raziskuje Yan s sodelavci [Yan & Rajan, 2008; Yan, Behera, & Rajan, 2010]. Zanima jih, kako je mogoče s pomočjo digitalne fotografije shraniti večjo količino informacij o barvi in osvetlitvi arhitekturne dediščine. Njihov cilj je razviti cenovno ugodno in učinkovito metodo, ki bo v pomoč pri evidentiranju in dokumentiranju informacij o barvah interjerjev in eksterjerjev. "Z vzorčenjem, opisovanjem in primerjavami barvno informacijo, ne glede na svetlobne učinke, kar je bistvena lastnost zaključnega sloja površin v notranjosti in zunanosti, natančno dokumentiramo samo na manjših vzorčnih območjih, na celotnem obsegu gradbenih površin pa ne." [Yan & Rajan, 2008: str. 238] Ravno tu je predstavljena metoda v prednosti, z njo je namreč mogoče zabeležiti podatke o barvi s celotnih površin, barve posameznih slikovnih točk (pikslov) na vsakem delu fotografije pa se s spektrometrom definirajo in enoznačno določijo v barvnem modelu CIELUV (CIE $L^*u^*v^*$).

Postopek temelji na fotografiranju z velikim dinamičnim razponom (HDR ali HDRI – High Dynamic Range Imaging). Izraz se uporablja pri digitalni obdelavi videa, računalniške grafike in v fotografiji



of the scan is comprised of a set of points with three spatial coordinates in a chosen coordinate system where the points describe the surface of the object. In most of these instruments, point clouds are a raw product of measurement, but they may also include additional information such as the intensity of the reflected light and the order of reflection (in case of multiple reflections). The laser beam, which is used to measure the distances to different parts of the surface, is essentially monochromatic. However, with simultaneous shooting it is possible to attribute color value to every point in the cloud by knowing the mutual geometrical relationship between the camera and the laser scanner. This makes it possible to display the scanned object not only in the three-dimensional view, but also in color. In this case, it comes to colored cloud points. The spectrometer also allows defining unambiguously the color tone. The proper recording, storing and preparation of the information are the basis that make it suitable for the use in different circumstances and that allow the interested public better access to it.

3. Results

Today technology has advanced to such level that it is possible to select an appropriate device to obtain the required information on the color. The choice of tools and the precision of the result depend on the significance and the value of heritage and the available resources. This includes trained professionals,

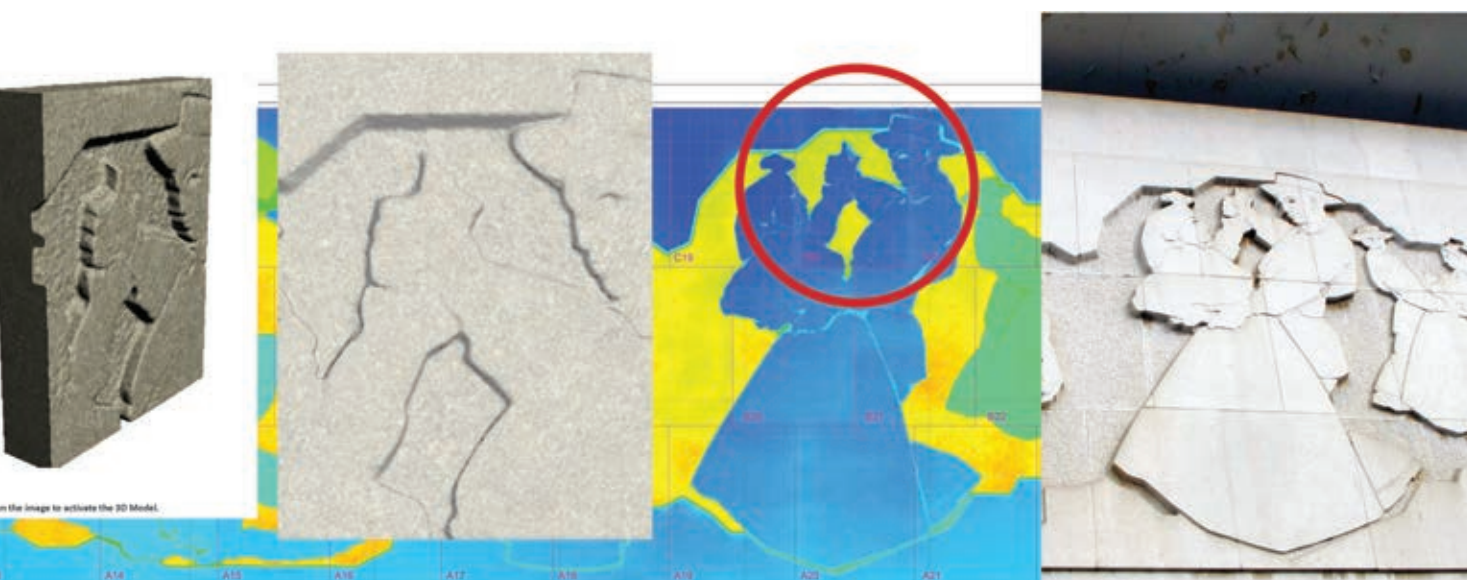
available equipment, time and financial resources. They must be handled with care and used to their full extent.

Textual records, sampling, and the use of color charts for a comprehensive and accurate recording of colors are only a part of the story about recording and documenting the color components of heritage. In some cases, it is necessary to find and use different methods. These are perhaps more expensive or require more time, work and knowledge, but can offer more leeway in interpretation and repeatability. Before deciding to implement them, it is important to make a proper plan, which includes both research and knowledge of the widest possible range of options to achieve the desired objectives. In addition to the complexity and other things defining the object, the criteria for planning should also include its legal status and evaluation – sampling of works of art such as Leonardo Da Vinci's Mona Lisa [National Geographic Society, 2013] for investigation and research is inadmissible. For this purpose, there are other tools.

Today color measurements are used on objects where accuracy and precision are essential, such as paintings, but the measuring methods and instruments differ. Spectrometer is a general term, which refers to several types of devices capable of measuring a wide part of the electromagnetic spectrum. Some of them are used in science

Slika 7: Hipsografski prikaz prostorskega modela kamnitega reliefa Jakoba Savinška na pročelju Kulturnega doma v Črnomlju s prostorskim in barvnim prikazom modela ene kamnite plošče (ni v merilu). Rezultati so narejeni iz barvnega oblaka točk in shranjeni v prostorski format PDF (načrti: Gvozdanovič, T., Anžur, A., Novaković, G., 2012, ZVKDS, Center za konservatorstvo, Restavratorski center; ilustracija: Potočnik, I., 2015).

Figure 7: The hypsographic display of the model of Jakob Savinšek's stone relief on the facade of the Cultural center in Črnomelj with spatial and colored model of one stone slab (not to scale). Results are made from colored point cloud and stored in a three-dimensional PDF format (plans: Gvozdanovič, T., Anžur, A., Novaković, G., 2012, IPCHS, Conservation Centre, Restoration Centre; illustration: Potočnik, I., 2015).



ter se na splošno nanaša na tehnike za zagotavljanje razširjenega tonskega razpona, tako da se preseže tonski razpon, dosegljiv z enkratno ekspozicijo. Ta metoda je primerna pri velikih razlikah v osvetlitvi motiva (sonce – senca); podrobnosti, ki jih zazna človeško oko (sicer bolj občutljivo od današnjih digitalnih senzorjev), je namreč z enkratno osvetlitvijo težko zabeležiti. Osnova je večkratno fotografiranje motiva z različnimi nastavitvami, z nadaljnjo obdelavo in združevanjem posnetkov pa shranimo več podrobnosti v celotnem tonskem razponu.

2.4. Laserski skener in barva

Za hkratno beleženje merskih podatkov [Triglav, Crosilla, & Kosmatin Fras, 2010: str. 403–416] in informacij o barvnem tonu je primerna kombinacija laserskega skenerja (optičnega čitalnika) in fotoaparata. Za obdelavo podatkov so potrebni še zmogljiva strojna in ustrezna programska oprema ter ustrezno usposobljen operater. Splošni izraz 'laserski skener' se navadno nanaša na "niz instrumentov, ki delujejo na različnih osnovah, v različnih okoljih ter z različno natančnostjo in točnostjo" [Mills, Barber, & Andrews, 2011: str. 3]. Rezultat skeniranja je množica točk s tremi prostorski koordinatami v izbranem koordinatnem sistemu, kjer točke opisujejo površino objekta. Pri večini tovrstnih instrumentov je surovi produkt merjenja oblak točk, ki pa lahko vsebuje tudi dodatne informacije, kot je intenziteta odbite svetlobe in red odboja (če pride do več odbojev). Laserski žarek, ki se uporablja za merjenje razdalj do posameznih delov površja, je v osnovi monokromatski. Če pa se sočasno izvede tudi fotografiranje, je mogoče ob poznavanju medsebojnih geometrijskih odnosov med fotoaparatom in laserskim skenerjem vsaki točki v oblaku pripisati tudi barvno vrednost. To omogoča, da objekt skeniranja ni prikazan le prostorsko, temveč tudi v barvah. V tem primeru je govora o barvnem oblaku točk.

S spektrometrom je mogoče tudi tu barvni ton enoznačno definirati, podatek je treba le še primerno zabeležiti, shraniti ter pripraviti v takšni obliki, da bo primeren za uporabo v različnih okoliščinah in da

bo imela do njega dostop čim širša zainteresirana javnost.

3. Rezultati

Danes je tehnologija tako napredovala, da je mogoče z ustrezno izbrano napravo pridobiti tudi informacijo o barvi. Izbira orodja in natančnost rezultata sta odvisna od pomena in vrednosti dediščine ter od razpoložljivih sredstev. Sem sodijo usposobljeni strokovnjaki, razpoložljiva oprema, čas ter finančni viri. Z njimi je treba ravnati skrbno, obenem pa jih je treba kar najbolj izkoristiti.

Besedilni zapisi, vzorčenje in uporaba barvnih kart za celovito in čim natančnejše beleženje barv so le del zgodbe o dokumentiranju barvne komponente dediščine. V nekaterih primerih je treba poiskati in uporabiti še druge metode. Te so danes morda dražje ali zahtevajo več časa, dela in znanja, a omogočajo več manevrskega prostora pri interpretaciji in so ponovljive. Pred odločitvijo o izvedbi je nujno ustrezno načrtovanje, ki vključuje tako raziskave kot poznavanje čim širšega nabora možnosti za doseganje zastavljenih ciljev. Poleg kompleksnosti in stanja objekta bi morala biti pri načrtovanju upoštevana tudi njegov pravni status in vrednotenje – na umetniškem delu, kot je da Vincijeva Mona Lisa [National Geographic Society, 2013], je odvzem materialnih vzorcev za preiskave in raziskave nedopusten. Za ta namen so na voljo druga orodja.

Barve se dandanes merijo pri predmetih, kjer sta nujni točnost in natančnost, na primer pri slikah, načini merjenja in instrumenti pa se razlikujejo. Naprave, ki omogočajo merjenje v širokem delu spektra elektromagnetnega valovanja, se splošno imenujejo spektrofotometri. Nekateri med njimi se uporabljajo pri naravoslovnih preiskavah za identifikacijo organskih komponent predmetov kulturne dediščine (veziv, lakov, vlaken), identificirati pa je mogoče tudi nekatere anorganske snovi (pigmente, minerale). Spektrometer je lahko povezan z mikroskopom, kar omogoča analizo zelo majhnih vzorcev, vse to pa omogoča celovit pristop pri vrednotenju predmetov kulturne dediščine. Uporaba spektrometra je mogoča tudi na gradbenih

površinah, in to tako na zadnjem sloju kot po odvzemu vzorcev na vseh zgodovinskih plasteh, kar je z raziskovalnega vidika vsekakor zanimivo.

V praksi je s fotografiranjem in fotografiranjem HDR še vedno največ težav pri napravah za zajem slik. Pri tovrstnem fotografiranju je večina opreme namenjena profesionalni rabi. S splošno dostopnimi napravami je mogoče uporabiti le tehniko več zaporednih posnetkov v različnem tonskem razponu. Fotografije HDR, pridobljene z navadnimi kamerami, je treba nato s programsko in strojno opremo šele izdelati. To je zamudno in zahteva precejšnje strokovno znanje. Pri tem načinu dela na rezultat zelo vpliva časovna neusklajenost: med posnetki se motiv lahko zaradi vetra, gibanja ljudi ali avtomobilov spremeni. Podobne posledice ima premik naprave pri pritisku na sprožilec – z vsako motnjo upade kakovost. In čeprav se je mogoče izogniti tehničnim težavam, rezultat porabi ogromno shranjevalnega prostora. Pričakovati je (seveda), da bo tehnološki razvoj tovrstne težave rešil. Letos je Wagner [2015] vložil patentno prijavo za "časovno usklajeno kadriranje /stopnjevalno snemanje/ za fotografiranje HDR", kar bi utegnilo biti alternativa dosedanjemu načinu fotografiranja HDR. Ker gre za patentno prijavo, splošne uporabe ne moremo napovedati.

4. Razprava

V mednarodnem prostoru se je na osnovi številnih izkušenj izoblikovalo ogrodje dokumentiranja arhitekturne dediščine in njene digitalne rekonstrukcije, ki vključuje geodetsko izmero, raziskave in analizo arhivskega gradiva ter trirazsežno (3R) prostorsko modeliranje stavb z večpredstavnim vmesnikom [Yan, Behera, & Rajan, 2010]. Ta okvir dela se dopolnjuje, krči ali spreminja glede na okolje in razmere. V Sloveniji prostorsko modeliranje in nadaljnje delo v smislu raziskovanja ali predstavitev ni v splošni uporabi, a arhitekti, gradbeniki in geodeti vseeno zapišejo velik del prostorskih merskih informacij. Beleženje lege, dimenzij in/ali oblike je vendarle nujna sestavina vsakega projekta obnove, saj gre za "pomemben element dokumentacije in raziskovalnega

investigations to identify the organic components of cultural objects (binders, paints, fibers). It is also possible to identify some inorganic materials (pigments, minerals). The spectrometer can be coupled with a microscope, which enables the analysis of very small samples. All this allows for an integral approach in the evaluation of cultural heritage objects. Spectrometer can also be used on building surfaces, both on the last layer and on all the historical layers, which is certainly interesting from the research point of view.

In practice, the image capturing devices present the biggest problem in photography and in HDR imaging. Most of the equipment is intended to professional use. The widely available devices can only use the technique of successive shots in different tonal ranges; after that, it is necessary to create the HDR images with the help of software and hardware. This is time-consuming and requires considerable expertise. Using this work method, timing has great impact on the results, since wind, movement of people or cars can change the motive. Moving the device by pressing the shutter button can have similar consequences – any such disturbance decreases the quality. In addition, even though it is possible to avoid technical problems, the result still takes up a lot of space on the storage media. It is expected (of course) that the technological development will solve these problems. This year Wagner [2015] filed a patent application "for temporally aligned exposure bracketing for high dynamic range imaging," which will offer an alternative to the current way of creating HDR images. Since it is a patent application, we cannot predict the general use.

4. Discussion

The framework for heritage recording and historic reconstruction that involves "surveying, historic investigation, three-dimensional (3D) digital modelling of buildings and an enabling (multimedia) interface" [Yan, Behera, & Rajan, 2010] has formed on numerous international experiences. This framework is supplemented, contracted or changed in relation to the environment and circumstances. In Slovenia, spatial

modeling and further work in terms of research or presentation is not in general use, although the architectural, civil engineering and surveying professionals record a large share of spatial metric information. The recording of position, dimensions, and/or shape is an essential part of every project related to the conservation of cultural heritage and forms "an important element of the documentation and analysis process" [Mills, Barber, & Andrews, 2011: p. 3]. Recording is "the graphic and/or photographic capturing of information" which describes the heritage place "at known points in time" [Letellier, Schmid, & LeBlanc, 2007: p. 35] – this important task must be executed first and repeated when appropriate. How extensive the recording of data will be, depends on the "needs assessment, the cultural significance of a heritage place, and the interaction between available resources and relevant constraints" [Ibid: p. 36]. In Slovenia, the work in the field of heritage conservation is facing some restrictions. Architectural documentation collected, stored or created by the Service for the Protection of Cultural Heritage is frequently still not spatial. Perhaps the reason is that 3D records are seen as a supplement and a sort of upgrade. "The focus of 3D visualization of historical structures is not 3D modeling or creating stunning images, but conducting an in-depth, systematic study of the sources, correlating and assessing them, deriving the most probable hypotheses, documenting this interpretation process in a well-structured way and finally visualizing them according to the requirements of the context in which these visualization results are used." [Pletinckx, 2008: pp. 91–92]

There is a variety of techniques available to generate three-dimensional survey information. "These techniques can be characterized in a number of ways, but a useful method is by the scale at which they might be used (which is related to the size of the object to be measured), and by the number of measurements acquired by it (which is related to the complexity of the object). While hand measurements can provide dimensions and positions of objects and scenes of a few meters in size, it is impractical to extend this to larger objects; and collecting many

measurements would be a laborious process. Close-range photogrammetry and terrestrial laser scanning could be used to provide a greater number of measurements for similar object sizes, which makes them suitable for more complex objects" [Mills, Barber, & Andrews, 2011: p. 3].

Conservation does not deal with color description on a regular basis. One of important tasks is documenting the state of heritage and monuments. In addition to the already mentioned, there are other tools, accessible to a wide range of users. This fact is a big advantage, but also an obstacle. It can be stated that the reproduction of photos – Kumar [2008: p. 121] writes extensively on this – or HDR images is today already a common knowledge but without any deeper understanding. Correct footprint of colors, especially in professional environments tied to the graphic design, printing or related fields requires color management of all devices involved in the production process. Many of them use the RGB color space. Before printing photos should be converted to a suitable format, e.g. for printers with four basic CMYK colors. Formulae, which convert RGB to CMYK, where the conversion occurs through the CIE model, are not simple and the CMYK actually has no true standard. Therefore, the outputs of the same document on different devices and with the help of a variety of software may differ; and are affected by the color gamut, which is limited in the CMYK color space.

What can be said about the preview of photos? Technically even the most sophisticated monitor is of no use if it depicts distorted color effects as a result of factory settings. In addition to the screen, hardware and software has to be taken into account. Before the work, the screen should be adjusted to fully exploit the color space it is able to depict, and to make the best possible simulation of other standardized color models (sRGB, Adobe RGB ...). "This can only be achieved with the instrumental calibration. Different software tools, based on visual observation, give us unreliable and unrepeatable results. This also applies to color profiles, supplied by manufacturers with the monitor; in particular, in these cases

procesa" [Mills, Barber, & Andrews, 2011: str. 3]. Beleženje je grafično in/ali fotografsko zapisovanje merskih in drugih podatkov o zunanji podobi. Z njim se ohrani vedenje o "razvoju in stanju arhitekturne dediščine v danem trenutku" [Letellier, Schmid & LeBlanc, 2007: str. 35] – to pomembno nalogo je treba opraviti prvo in jo redno ponavljati. Koliko obsežno bo beleženje zastavljeno, je odvisno od "nujnosti, kulturnega pomena območja, ciljev, virov ter drugih omejitev" [prav tam: str. 36]. V Sloveniji je pri delu na področju ohranjanja dediščine kar nekaj omejitev, zato arhitekturna dokumentacija, ki jo služba za varstvo kulturne dediščine zbira, hrani in tudi izdela, še vedno velikokrat nima prostorske komponente. Morda tudi zato, ker je to razumljeno zgolj kot dodatek in nadgradnja. A "žarišče 3R-vizualizacije zgodovinskih objektov ni v 3R-modeliranju ali oblikovanju osupljivih fotografij, temveč v poglobljenem, sistematičnem študiju ter povezovanju in ocenjevanju virov, izpeljavi najverjetnejše hipoteze, dokumentiranju dobro strukturiranega procesa interpretacije in naposled vizualizacije vsega tega v skladu z zahtevami in glede na namen uporabe rezultatov." [Pletinckx, 2008: str. 91–92]

Na razpolago so različne tehnike in orodja, s katerimi je mogoče ustvariti mersko informacijo o prostoru. Izbrati jih je mogoče na več načinov a "uporaben kriterij je na primer merilo, v katerem je orodje uporabno (glede na velikost in obseg merjenega objekta), in število z njim dobljenih mer (glede na kompleksnost objekta). Ročne meritve so primerne za izmero objektov in prizorišč v obsegu nekaj metrov, širjenje območja je nepraktično. Tudi izmera večjega števila dimenzij, na primer tisoč ali več, je težavna naloga, ki zahteva veliko časa. Za to sta primernejša bližnjieslikovna fotogrametrija ali terestrično lasersko skeniranje, saj je z njima pri podobno velikih in kompleksnih objektih mogoče izmeriti veliko večje število dimenzij" [Mills, Barber, & Andrews, 2011: str. 3] in to v razmeroma kratkem času.

Konservatorstvo se z opisovanjem barv ne ukvarja redno. Za zapis informacije o njih so poleg omenjenih orodij na voljo še druga,

ki so dostopna širokemu krogu uporabnikov. To je velika prednost, a hkrati tudi ovira. Mogoče je posplošiti, da se z reprodukcijo fotografij – o tem obširno piše Kumar [2008: str. 121] – ali slik HDR danes sreča že vsakdo, a brez dobrega poznavanja ozadja. Pravilen odtis barv, predvsem v profesionalnih okoljih, ki so vezana na grafično oblikovanje, tisk ali sorodna področja, zahteva barvno upravljanje (color management) vseh uporabljenih naprav, saj večinoma uporabljajo barvni prostor RGB. Pri tisku pa je treba fotografije pretvoriti v barvni prostor, ki ga uporablja izhodna naprava, na primer tiskalnik s štirimi osnovnimi barvami CMYK. Enačbe, ki pretvorijo RGB v CMYK (pri čemer pretvorba večinoma poteka preko modela CIE), niso preproste in CMYK pravzaprav nima standarda. Zato utegnejo biti izpisi istega dokumenta na različnih napravah in z različno programsko opremo različni, na rezultat pa vpliva tudi razpon barv, ki je pri barvnem prostoru CMYK omejen.

Kaj pa predogled fotografije? Še tako tehnično izpopolnjen zaslon je brez koristi, če zaradi tovarniških nastavitvev upodablja popačene barvne učinke. Poleg zaslona je treba upoštevati še strojno in programsko opremo. Pred delom ga je treba nastaviti tako, da popolnoma izrabi barvni prostor, ki ga je zmožen prikazati, in da lahko najbolje simulira kar največ drugih standardiziranih barvnih modelov (sRGB, Adobe RGB...). "To je mogoče doseči le z instrumentalno kalibracijo/merjanjem. Različna programska orodja, ki temeljijo na vizualnem opazovanju, dajejo nezanesljive in neponovljive rezultate. To velja tudi za barvne profile, ki jih z monitorji dobavljajo proizvajalci, še zlasti pa je treba v teh primerih pozabiti na simulacijo tiska v barvnih prostorih CMYK. Rezultati niso natančni in ponovljivi niti primerljivi." [Kumar, 2008: str. 256]

Pri razmisleku, kako informacijo o barvi zabeležiti, je treba razumeti, da pretvorbe tako poškodujejo barvno natančnost in podrobnosti, da ton ne ustreza več temu, kar je videlo oko. Upoštevati je treba tudi, da se z ročno obdelavo in omejenim obsegom barv, ki jih je mogoče prikazati (gamut) ali natisniti na razpoložljivi opremi,

poškodba samo povečuje. Škodo je s profesionalno strojno in programsko opremo mogoče zmanjšati, a za povprečnega uporabnika razlika do trenutka, ko informacijo o barvi rabi, ni relevantna.

Pri dejanski obnovi, restavriranju spomenikov ali dediščine ter pri rekonstrukciji stavb se lahko zaplete zaradi neznanja ali napačne interpretacije shranjenih podatkov. V teoriji morajo posegi zagotavljati skladnost s prvotno obliko, barvo, odtinkom, sestavom, obsegom ter omogočiti ohranitev čim večje količine zgodovinskega materiala [Feilden & Jokilehto, 1998], s tem se zagotovi avtentičnost. Razumevanje avtentičnosti je namreč podlaga za vrednotenje. Že restavriranje je visoko strokoven postopek, ki mora ostati nekaj izjemnega: "ustaviti se mora tam, kjer se začenjajo domneve." [ICOMOS, 2003, 9. čl.] Mednarodno sprejeta načela svarijo pred invazivnimi posegi v spomenike celo pri dovolj informacijah in ko naj bi bilo soglasje možno ter strokovno utemeljeno. Kako pa je s posegi na že zelo poškodovani dobrini, o kateri so na voljo morda le dokumenti, katerih problematika je nakazana v tem besedilu? V takšnih primerih je obnova seveda na mestu, a strokovno vprašljiva. Spomenik naj ne bi propadel do take mere, a propadlih elementov brez popolne in natančne informacije tudi ne bi smeli rekonstruirati – niti barve ne. Temu se je mogoče izogniti le z rednim vzdrževanjem in izdelavo ustrezne dokumentacije.

5. Zaključek

Barve ni mogoče zabeležiti samo na en način ali z eno metodo. Zelo pomemben je sistematičen pristop in povezovanje podatkov iz vseh razpoložljivih virov. Enako sistematičen pristop mora veljati pri hrambi rezultatov, sicer so lahko vsa prizadevanja za zapis podatkov zaman. Dokumentacija je smiselna, če se nepretrgano gradi, dopolnjuje in povezuje, način dokumentiranja pa se med procesom lahko celo spremeni ali izboljša. Mednarodna skupnost vse od zapisa Atenske in Beneške listine do Konvencije o svetovni dediščini in drugih listin v novjšem času postavlja, razvija in zapisuje načela delovanja in ohranjanja kulturne dediščine ter pogloblja razumevanje,

we can forget about the simulation of the press in CMYK color space. The results are imprecise, unrepeatable, and incomparable." [Kumar, 2008: p. 256]

In considering, how to record information about color, it should be understood that color accuracy and detail could get damaged in the process of conversion in such way that it no longer corresponds to what the eye sees. It should be also taken into account that together with manual processing and the color range, which can be displayed (gamut) or printed on the available equipment, the damage only increases. With the use of professional hardware and software, the damage may be decreased, but for the average user this difference, up to the moment the information on the color is needed, is irrelevant.

In actual reconstruction, restoration of monuments or heritage, and the reconstruction of buildings complications may appear due to lack of knowledge or misinterpretation of the stored data. In theory, interventions must ensure compliance with the original shape, color, shade, assembly, scale and be able to retain the greatest possible amount of historical material [Feilden & Jokilehto, 1998], ensuring authenticity. Understanding authenticity is the basis for valuation. Restoration is a highly professional process, and must remain something exceptional. "It must stop at the point where conjecture begins." [ICOMOS, 2003: Art. 9] Internationally accepted principles warn against invasive interventions even when there is enough information, the interventions are professionally justified, and an expert consensus is possible. So, how to handle interventions on the quite damaged buildings and with only few documents available? In such cases, the restoration is, of course, necessary, but questionable from the professional point of view. The monument should not be ruined to such an extent and the failed components without complete and accurate information should not be reconstructed – not even colors. Only by regular maintenance and proper documentation can this be avoided.

5. Conclusion

It is not possible to record color in only one way or using only one method. Great importance should be attributed to systematic approach and integration of results from different sources. We must apply the same systematic approach in archiving the records; otherwise, all efforts in data recording are in vain. Documentation makes sense if it is built, complemented, and linked, while recording techniques can be changed or improved during the process. The international community has set up (the Athens Charter, Venice Charter, World Heritage Convention and other documents), developed, and wrote down the operating principles for the preservation of cultural heritage and the very understanding of what is the immovable cultural heritage. Thus, many contributed to these texts of declarations; they are optional, but professionally justified. Recommendations are loosely binding and the most binding among them are the conventions. They morally bind signatory states as well as those that have not ratified the document, and their content is expected to be adopted in the local legislature. They have a common point – "every text is concise, and to the point, thus ensuring its acceptability for the widest array of users in various countries with different cultural environments and systems of protection" [Grobovšek, 2014, p. 9]. Colors are indirectly included in these texts in the sense of authenticity and originality of materials, documents, techniques, and recommendations and in incitement to recording, storing information about the monuments and all of the components, as well as in planning interventions.

Conservation aims at safeguarding the quality and values of the assets, protecting its material substance and ensuring its integrity for future generations [Feilden & Jokilehto, 1998], and must respect "the valid contributions of all periods" [ICOMOS, 2003: Art. 11]. Stylistic harmony should not be our goal; on the other hand, the presentation of all periods simultaneously is probably not an appropriate approach either. Recording, interpretation of data, their storage and use for the purpose of presentation with the help of

already available technologies and tools, such as computer-aided visualization, and not the in-situ presentation, is a methodology that we can recommend. When speaking about the in-situ presentation, we cannot ignore the warning about the loss of substance, which occurs during the disclosure of individual elements. We cannot avoid external factors. At the same time, we must not forget that despite the attractiveness of the newer tools that provide a strong technological support, exploration and understanding of the heritage should come first. "A computer-based visualization method should normally be used only when it is the most appropriate available method for that purpose" [Beacham, Denard, & Niccolucci, 2009: Principle 2]. Whatever the approach – scope, accuracy, precision and singularity are the result of the knowledge, skills, experience of the person that records the information, the one that stores it, the person who searches for information, and the one who uses it. Decision, on what the information that we want to preserve should be, depends on knowledge. Larger amount of data does not always offer a better basis for decision-making and conservation of resources. Too much information can be an obstacle. Project planning, well-done records and their proper storing can save us time and enables a rational use of increasingly scarce resources. Setting priorities is appropriate; it reduces the possibility of duplication or the execution of unnecessary works. The result is sufficiently detailed information, which will not deviate from the purpose for which it was recorded, thus avoiding any substantial deviation between its inception and its exploit. It must contain measurement data, material composition and argumentation of the accepted decisions, because otherwise subsequently the mind flow cannot be followed. We can re-read the stories hidden in the building fabric (without good records and archive) about how the heritage was built, used and modified only if we preserve the heritage itself.

The main question is no longer how to record something, but how to arm the owner, the central influential person, with knowledge. We have to convince him to preserve heritage

kaj nepremična kulturna dediščina sploh je. Tako so nastala besedila deklaracij, ki so neobvezne, a strokovno utemeljene, zapisana so bila mehko obvezujoča priporočila in najbolj zavezujoča besedila med njimi, konvencije. Slednje moralno zavezujejo tako države podpisnice kot tudi tiste, ki teh dokumentov niso ratificirale, vsebine pa naj bi bile privzete v nacionalno zakonodajo. Imajo skupno točko – "vsako od besedil je zato, da bi bilo sprejemljivo za različna kulturna okolja in sisteme varstva v državah, le toliko obširno, da je sprejemljivo najširšemu krogu uporabnikov" [Grobavšek, 2014: str. 9]. Barve so v ta besedila posredno vključene: kjer je govora o avtentičnosti in izvirnosti materialov, gradiv, tehnik ter priporočil in spodbujanja k dokumentiranju, hranjenju informacij o spomenikih in seveda vseh sestavnih delov kot tudi o načrtovanju posegov.

Cilj ohranjanja je varovanje kakovosti in vrednot dobrine, zaščita njegove materialne substance in zagotavljanje njene neokrnjenosti za prihodnje rodove [Feilden & Jokilehto, 1998], ob tem pa je treba "spoštovati kakovostne prispevke vseh obdobij" [ICOMOS, 2003, 11. čl.]. Cilj ne sme biti slogovna enotnost, na drugi strani pa sočasna predstavitev vseh obdobij tudi ni ustrezen pristop. Zagovarjati pa je mogoče metodologijo z beleženjem, interpretacijo pridobljenih podatkov, njihovim hranjenjem in uporabo z namenom predstavitve, pri čemer se uporabijo že danes dostopne tehnologije in orodja, kot je računalniško podprta vizualizacija (ne s predstavitvijo in situ). Pri predstavitvi in situ je treba opozoriti na izgubo materije, čemur se pri razkrivanju posameznih elementov zunanjim dejavnikom ni mogoče izogniti. Hkrati se je treba zavedati, da je kljub privlačnosti novejših orodij, ki nudijo močno tehnološko podporo, na prvem mestu raziskovanje in razumevanje dediščine. "Računalniško predstavitev naj bi običajno uporabili le, če je najustrenejša za ta namen." [Beacham, 2009] Ne glede na pristop so obseg, točnost, natančnost in enoznačnost rezultat znanja, spretnosti, izkušenj tistega, ki informacijo zabeleži, tistega, ki jo hrani, tistega, ki jo poišče, in tistega, ki jo uporabi. Od vsega tega je odvisna tudi odločitev, kakšna naj bo ohranjena

informacija. Večja količina podatkov ni vedno boljša osnova za odločanje in ohranjanje dobrin, zato pravilno načrtovanje in dobro izdelana in shranjena dokumentacija prihrani čas in omogoči racionalno izrabo vedno skopo odmerjenih virov. Ustreznejša je postavitev prioritet – tako se zmanjša možnost podvajanja ali izvedbe neustreznih del. Rezultat bo informacija, ki bo podana dovolj natančno, da se pri njeni uporabi ne bo odstopalo od namena, s katerim je bila zabeležena, in da se od nastanka do uporabe njena vsebina ne bo bistveno spremenila. Vsebovati mora merske podatke, materialno sestavo in argumentacijo za sprejete odločitve, saj sicer kasneje ne bo mogoče slediti miselnemu toku ob dokumentiranju. V stavbno tkivo skrite zgodbe – kako je bila dediščina zgrajena, uporabljena, spremenjena – bodo v prihodnje še berljive, a le, če bo stavba ohranjena.

Odnos do barve je subjektiven, vendar se da njena objektivna vrednost dokazati in utemeljiti. Razpoložljivost virov seveda narekuje odgovornost tehtnega premisleka, kako in kaj zabeležiti: predstavljene metode so bile izbrane zato, ker se že uporabljajo in jih je mogoče združevati in nadgrajevati. Laserski skener objekt izmeri, fotografija dopolni podobo z merljivo barvo in informacija je tako zaokrožena. Če se dediščina iz katerega koli vzroka izgubi, je ves postopek ponovljiv (če so podatki ustrezno shranjeni). Tako nastali dokumenti so neločljivi del dediščine in v prihodnje se jim bodo pridružili še novi. Glavno vprašanje danes ni več, kako stanje dediščine in s tem tudi barvo zabeležiti, marveč kako osrednjo vplivno osebo, lastnika, oborožiti z vedenjem o tem, kaj ima. Prepričevanje, utemeljevanje in dokazovanje, da ima nekaj vrednega in naj to ohrani najprej zaradi sebe, je nujnost. Le s postopnim pridobivanjem zaupanja bo mogoče sodelovanje, vlaganje v fizično ohranjanje dediščine in beleženje ter spremljanje njenega stanja. Vzporedno s tem bo poiskan tudi primeren način hranjenja zbranega gradiva. Lastnik namreč za ohranjanje dediščine navadno ne skrbi sam, zato zapisano velja za vse soudeležene.

for his sake and gradually gain confidence, based on which he will be ready to invest in the preservation of heritage, understand the need to use specific methods of recording its condition and allow appropriate storage and archiving of records and other documentation.

The attitude toward color is subjective, but its fair value is demonstrable and justifiable. Of course, the availability of resources dictates the responsibility for careful consideration of how and what to record: the presented methods are selected because they can be combined and upgraded. Laser scanner measures the objects, photographs supplement the image with measurable color and information is rounded. If for whatever reason the heritage is lost, the entire process is repeatable (if the data is properly stored). The resulting documents are an inseparable part of heritage; in the future, new ones will join them. The main question is no longer how to record the current state of heritage and hence the color, but how to arm the key influential person, the owner, with knowledge of what he possesses. Persuasion, argumentation and proving that he has something valuable and should keep it first for himself, are a necessity. Only a gradual increase of confidence will lead toward cooperation, monitoring, investments in heritage conservation and recording. Parallel to this, appropriate storage of the collected material will be located. Owners generally do not care about heritage or a building in general by themselves; therefore, the above applies to all participants.

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Recenzije / Review

Problematika beleženja barv pri dokumentiranju in vrednotenju objektov arhitekturne dediščine ima v širšem kontekstu ohranjanja le-te pomembno vlogo, saj močno vpliva na verodostojnost prikaza zgodovinskih interierov in zunanosti. V tem pogledu predstavlja članek pomemben in dobrodošel strokovni prispevek, v katerem avtor podrobno informira strokovno pa tudi laično javnost o možnih načinih beleženja barve v kontekstu objektov arhitekturne dediščine. Z vsemi prednostmi in pomanjkljivostmi, ki jih tudi opiše. V času, ko je presoja o ohranjanju ali odstranjevanju objektov arhitekturne dediščine velikokrat na strani kapitala, je objektivna informacija o možnostih njene zaščite in obnove toliko bolj na mestu. V besedilu je na začetku ustrezno prikazano problemsko ozadje. Metode beleženja so v jedru članka ustrezno razložene, besedilo pa je razumljivo strukturirano, da se bralec, ki še nima podrobnega vpogleda v obravnavano problematiko, ne izgubi. V zaključku članka so ponovno poudarjeni cilji članka ter kako jih članek dosega.

doc. dr. Tomaž Novljan, UL FA

NOVI PEKING IN SIJAJNEJŠI ŠANGHAJ – VIZIJA JAVNEGA PROSTORA V TREH KONTEKSTIH

NEW BEIJING AND GREATER SHANGHAI - VISION OF PUBLIC SPACE IN THREE CONTEXT

Ključne besede

kitajska mesta; javni prostor;
hiperurbanizacija; kitajska družba;
kitajska kultura

Key words

Chinese cities; public space;
hyperurbanization; Chinese society;
Chinese culture

Izvleček

Mega merilo sodobnih kitajskih mest je posledica radikalne hiperurbanizacije in političnih reform, ki so v zadnjih 60. letih sistematično rušile mikro podobo kitajskih mest in spreminjale vrednote kitajske družbe. V članku je predstavljen vpliv dveh ključnih političnih prelomnic Mao Zedonga in Deng Xiaopinga na današnji razvoj kitajske družbe, podobo sodobnih kitajskih mest in definicijo javnega prostora. Vizija mestnih predelov Novi Peking in Sijajnejši Šanghaj v kontekstu socializma, ekonomije in družbe ustreza slednji razvoja kitajske družbe.

Različni pogledi na hiperurbanizacijo kitajskih mest skozi film, umetnost, sociologijo, politično in prostorsko teorijo ter filozfijo odpirajo kritičen diskurz o posledicah razvoja globalnega modela mest in vlogi javnega prostora v specifičnem političnem okolju ter o vlogi posameznika v sodobni kitajski družbi, ki zahteva nujno družbeno reformo.

Abstract

The large scale of the modern Chinese cities is the result of radical hyperurbanization and political reforms in the last 60 years. They systematically destroyed small-scale image of Chinese cities and changed the values of Chinese society. This article introduces the impact of two crucial political turning points of Mao Zedong and Deng Xiaoping, on the development of today's Chinese society, on the image of modern Chinese cities and on the definition of public space. The vision of the city parts New Beijing and Greater Shanghai in the context of socialism, economy and society represents continuum of development of Chinese society.

Hyperurbanization of Chinese cities opens a critical discourse through film, art, sociology, politics, spatial theory and philosophy. It is about the consequences of the development model of the global cities and the role of public space placed in a specific political environment as well as about the role of the individual in contemporary Chinese society, which requires urgent social reform.

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1. Uvod

Definicije urbanega javnega prostora v različnih kontekstih, političnem, geografskem, ekonomskem in družbenem, narekujejo v času sodobne hiperurbanizacije Kitajske globalni ekonomski standardi.

Za preobrazbo kitajskih mest, demografske spremembe in nove vrednote sta bili odločilni predvsem dve politični prelomnici: ideologija komunizma in kulturna revolucija Mao Zedonga ter sprejetje tržno usmerjenega gospodarstva, ki je v zadnjih petindvajsetih letih prek reform Deng Xiaopinga spodbudilo izjemen ekonomski, socialni in kulturni razvoj. Guy Olivier Faure razume spremembe v kitajski družbi kot predvidljiv nasledek razvoja, kot kontinuum in ne radikalno preobrazbo. Zanj je to hiter razvoj in ne odklon ali obrat. Kitajska sprejema modernost, svetovno ekonomijo integrira v svoj razvoj z veliko hitrostjo in jo tudi osmisli. Množične migracije ruralnega in urbanega prebivalstva spreminjajo socialno matrico mest. Posledica so večmilijonske metropole (Šanghaj 23. mil. preb., Peking 14. mil. preb., Hong Kong 7. mil. preb.) in nastanek novih mest.

Politika napoveduje, da bodo do leta 2020 zgradili 400 novih mest z milijon prebivalci. Neville Mars, nizozemski urbanist in teoretik, v knjigi *The Chinese Dream: A Society Under Construction* v multidisciplinarnem merilu sooča bralca z vzroki in posledicami največjega svetovnega urbanega booma, ki prihaja kot utopija v izjemnih razsežnostih in zahteva konstrukcijo nove družbe. Množični premiki 1,3 milijarde ljudi kažejo po mnenju ameriškega sociologa Richarda Sennetta vedenjske vzorce kozmopolitizma, heterogenosti in indiferentnosti do raznolikosti. Kitajski družbi namreč kljub skupnemu jeziku in nacionalni kulturi ni uspelo izbrisati medsebojnih razlik. Za Sennetta kozmopolitizem spodbudi prisotnost tujcev, s katerimi se ne identificiramo.

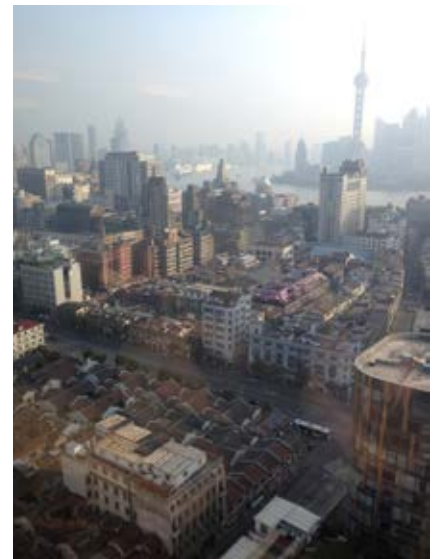
Javni prostor kitajske družbe, kot se manifestira v vseh globalnih oblikah fizičnega in virtualnega prostora, je še vedno izpostavljen političnemu nadzoru, kar je v nasprotju z definicijo javnega prostora v demokratičnih sistemih, ne pa s prakso.

Kot zagovornik kulturnega konteksta javnega prostora Sennett v članku *Quant* ugotavlja, da mora biti javni prostor definiran kot prostor, kjer se srečujejo tujci, in mora biti odprt za izmenjavo mnenj in širjenje informacij, od katerih sta odvisna politika in ekonomija. Zanimajo ga vzorci obnašanja in medsebojne interakcije.

Izpostavi dva pomembna teoretika, ki sta prav tako vplivala na koncept javnega:

Hannah Arendt, zagovornico javnega v političnem kontekstu kot odprtega fizičnega prostora oz. urbanega centra velikih razsežnosti, ter Jürgena Habermasa, ki postavlja v ospredje odprt komunikacijski proces, ki ni nujno vezan na fizičen prostor. Zanj je javni prostor vsak medij, priložnost ali dogodek, ki vodi k odprti komunikaciji med tujci.

V zadnjem desetletju sta kritičnemu diskurzu prekomerne urbanizacije veliko prispevala tudi kitajski film in likovna umetnost. Kontroverzni umetnik in aktivist Ai Weiwei, ki se bori proti kitajskemu političnemu režimu, se v svojih umetniških delih zavzema za človekove pravice in svobodo govora. Na retrospektivni razstavi *On the Table* (2014) v Barceloni pozove obiskovalce za svojo mizo k dialogu in pogovoru, k izmenjavi mnenj in idej, in pravi: "Svoboda je naša pravica vedeti vse."



Slika 1: Šanghaj, nekoč svetovljansko mesto, danes eno najpomembnejših gospodarskih, finančnih in komunikacijskih središč. Vir: Špela Hudnik.

Figure 1: Shanghai once cosmopolitan city, today one of the most important economic, financial and communications centers. Source: Špela Hudnik.



Slika 2: Parada na Trgu nebeškega miru ob 60. obletnici ustanovitve Ljudske republike Kitajske. Vir: Feng Li/Getty Images. (www.boston.com/bigpicture/2009/10/china_celebrates_60_years.html)

Figure 2: Parade in Tiananmen Square on the 60th anniversary of the founding of the People's Republic of China. Source: Feng Li/Getty Images. (www.boston.com/bigpicture/2009/10/china_celebrates_60_years.html)

Hkrati je kritičen do moderne kitajske družbe in umetnosti, ki je popolnoma izgubila estetske in moralne vrednote in opustila filozofsko refleksijo družbe.

2. Novi Peking in večiji Šanghaj - Vizija javnega prostora v političnem kontekstu.

Z novimi političnimi reformami, ki so nastopile z razglasitvijo Ljudske republike Kitajske (1949), so začele izginjati imperialistične podobe mest. Vlogo zidov kitajskih mest, ki so skozi stoletja definirali hierarhijo prostorov in položaj posameznika v družbi, so prevzele podobe socialističnih industrijskih mest, načrtovanih po sovjetskem vzoru.

Ameriški teoretik Yomi Braester (2010) govori o prelomnih urbanih in družbenih transformacijah kitajske družbe skozi perspektivo kitajskega filma *Cityscape* (1935). Film režiserja Yuana Muzhija, je podoba svetovljanskega Šanghaja ki v 50. letih radikalno izginja v socialistični podobi industrijskih predelov Večji Šanghaj in Novi Peking. V dokumentarnih filmih *The New Birth of China* (1949) in *Million Heroes Descend on Jiangnan* (1949) vlogo ulice kot linearnega javnega prostora kitajskih mest nadomesti sovjetski model mesta z velikimi trgi in avenijami, namenjenimi novim družbenim manifestacijam – vojaškim paradam.

"Ikonologija Šanghaja iz filmov 30. let, ki prikazuje mesto kot prefinjeno urbano središče, polno elegantnih bulvarjev, ekstravagantnih plesnih dvoran, svetlečih neonskih luči in mogočnih nebotičnikov, se umika podobi mesta političnih montaž in ideološko motiviranih parad." (Braester, 2010)

Novi podobi mestnih predelov – Novi Peking, središče kulture, znanosti, umetnosti in težke industrije, ter Večji Šanghaj, središče lahke industrije, trgovine in izobraževanja – definirajo urbane komune in ograjeni kompleksi, ki poudarjajo kontrast med mestom in dvoriščem kot pomembnim socialnim prostorom. Braester v tem kontekstu izpostavi film *Dragon Whisker Creek* (1952) režiserja Xian Quna in pravi: "Vzpostavi se dialektika med zaprtimi stanovanjskimi enotami in odprtimi prostori zbiranja. Čeprav je

dvorišče bistven del vizualne podobe mesta, mora Peking narediti vtis tudi kot mesto s širokimi avenijami in javnimi trgi."

3. Novi Peking in večiji Šanghaj - Vizija javnega prostora v ekonomskem kontekstu.

Hiperurbanizacija, ki jo je sprožila uvedba tržne ekonomije (1987) in je dosegla vrhunec z Olimpijskimi igrami 2008, je v veliki meri izbrisala mikro merilo javnega življenja in izkušanje prostora po načelu kitajske kulture. Pekinški hutongi in šanghajski longtangi, živahne ulice, mreže dvorišč in vitalnih vozlišč, odprtine in vrtovi izginjajo v mega merilu radikalne urbanizacije, prepletene z večravninskimi cestami in ulicami, trgovskimi centri, nebotičniki, nedefiniranimi javnimi prostori in ogromnimi stanovanjskimi kompleksi, ki narekujejo celostne življenjske vzorce in večfunkcionalne vsebine. Sodobna kitajska mesta postajajo sorodna zahodnim mestom in njihovim oblikovalskim principom.

V posebni izdaji revije *China Perspectives* (Piper Gaubatz, 2008), ki omogoča vpogled v analizo najnovejših političnih, ekonomskih, kulturnih in socialnih trendov na Kitajskem, lahko zasledimo, da je kitajska postreforma modernizacije in hiperurbanizacije pripeljala do petih novih oblik javnih prostorov v kitajskih mestih: odprti krajinski parki, trgi, trgovski prostori, zeleni prostori in začasni prostori.

Slika 3: Mao Zedong in Lin Biao na sprevedu na Trgu nebeškega miru v obdobju kulturne revolucije revolucije. Vir: Xinhua. (www.scmp.com/news/china/policies-politics/article/1854968/flying-red-flag-chinas-hongqi-wheeled-out-president)

Figure 3: Mao Zedong and Lin Biao on parade at Tiananmen Square during the period of the Cultural Revolution. Source: Xinhua. (www.scmp.com/news/china/policies-politics/article/1854968/flying-red-flag-chinas-hongqi-wheeled-out-president)



Kontroverznost definicije javnega prostora z navideznim socialnim kontekstom predstavljata v Šanghaju ulica Nanjing, najdaljša nakupovalna ulica, kjer so komercialne vsebine prepletene s kulturno-zabavnimi, in Bund, mestno sprehajališče ob reki Huangpu z razgledom na poslovno središče Pudong, uspeh kitajske vlade in nove ekonomije. Trg nebeškega miru v Pekingu se odpre v javni večnamenski prostor za množice in uradne paradne dogodke. Zeleni javni prostori so nove podobe globalnih ekoloških strategij, parki predstavljajo javni rekreativno-kulturni prostor, v katerem se spontano odvijajo različne aktivnosti, medtem ko so gradbišča in porušene mestne četrti oblika začasnih javnih prostorov vsakdanjega življenja.

Mesta postajajo poligon za špekulacije ekonomskih lobijev velikih razsežnosti. Razvijajo se načrtno, vendar neprilagojeno realnim potrebam družbe po modelu ameriških disperznih mest ali po evropskem modelu kompaktne mesta. Razvoj prevzame logika trga, kar je v manjšem obsegu širitve mesta izkusila tudi Evropa.

K diskurzu o problemu hiperurbanizacije in pomenu raznolikosti kitajske družbe in kulture sta predvsem v zadnjem desetletju veliko prispevala kitajski

film in umetnost. Radikalen boj posameznikov s političnimi avtoritetami in ekonomskimi lobiji proti brezkompromisnemu rušenju tradicionalnih kitajskih četrti in vrednot je prikazan v dokumentarnem filmu *Meishi Street* (2006), režiserja Ou Ninga.

4. Novi Peking in večiji Šanghaj - Vizija javnega prostora v družbenem kontekstu.

Medtem ko so kitajski politiki na letošnjem letnem zasedanju Kitajskega ljudskega kongresa sprejeli reformo o pospešeni gospodarski rasti in povečanju tujih investicij, pa je pomen družbenega kapitala še vedno zanemarljiv in ne ustreza spremembam pri urbanem načrtovanju, o katerih govori Susan Fainstein, avtorica knjige *Just City* (2010). Njena teorija načrtovanja sodobnih metropol je v integraciji treh načel: raznolikosti, demokracije in pravičnosti.

O pomenu raznolikosti velikih mest je pisala že Jane Jacobs (1961) v knjigi *Umiranje in življenje velikih ameriških mest*, kjer pravi: "Načrtovanje vitalnosti mora povsod v vsaki četrti velikega mesta spodbujati in pospeševati vse vrste raznolikosti in največje možno število raznolikih rab in ljudi; to je temelj mestne ekonomske moči, družbene vitalnosti in privlačnosti."

Zato je nujno, da se v nadaljnjem razvoju sodobnih kitajskih mest poleg ekonomskega protokola upošteva predvsem socialno-kulturni, ki bi z novo družbeno reformo osmislil vlogo kitajske družbe in posameznika v globalnem neoliberalnem kontekstu in kontroverznem političnem sistemu.

Pomanjkanje javnega življenja v Pekingu v intervjuju za nemški časopis *Die Zeit* (2015) kritično izpostavi umetnik Ai Weiwei:

"Peking je usmerjen politično zelo enostransko in življenje ljudi je omejeno na družino. Javnega življenja ni. Čeprav se je zvišal življenjski standard, vlada svoboda le znotraj potrošnje in zabave."

Zahteva po družbenih spremembah in demokratičnem prostoru, ki ni zaseben, ni tržen, ni političen in ni nadzorovan, ustreza definiciji belgijskega arhitekta in teoretika Wima Cuyversa (2008), ki raziskuje različne družbene fenomene skozi prostor: "Za mene je zasebni prostor, prostor, ki je v lasti nekoga [...], medtem ko javni prostor ne pripada nikomur in zato ga nihče ne nadzira [...]. Menim, da je javni prostor 'prostor transgresije', je tisti prostor, ki omogoča, da delaš stvari, ki jih v zasebnem prostoru ne moreš, ker je nadzorovan [...], to je tam, kamor za

Slika 4: Industrija postane gonilo kitajske družbe. Vir: Špela Hudnik.

Figure 4: Industry becomes a leading force of Chinese society. Source: Špela Hudnik.



Slika 5: Ulica, vitalni prostor kitajske družbe. Vir: Špela Hudnik.

Figure 5: Street, vital space of Chinese society. Source: Špela Hudnik.



Slika 6: Sprehajališče Bund ob reki Huangpu v Šanghaju. Vir: Špela Hudnik.

Figure 6: The Bund Promenade at Huangpu River in Shanghai. Source: Špela Hudnik.



trenutek pobegneš od vsakdana in pred nadzorom."

Sodobna kitajska mesta morajo torej zagotoviti kvaliteto življenja in bivanja v mikro in makro merilu, raznolikost javnega življenja ter kulturno-socialno interakcijo, družbeno ozaveščenost in možnost participacije v novih oblikah skupnosti. Po mnenju Zhang Lihua (2013) mora sodobna kitajska družba ustvariti harmonijo med človekom in naravo, ljudmi in družbo, med posamezniki v različnih skupnostih ter med umom in telesom.

5. Zaključek

Javni prostor v svoji idealni obliki agore in foruma izginja na obrobja mest ali se koncentrira v conah, ki so omejene v svojem delovanju, podrejene nadzoru in izključujejo posamezne skupine iz javnosti. Zato je nujno omejiti vpliv različnih političnih strategij in ekonomskih lobijev na razvoj globalnih mest in zavzeti kritičen odnos do eliminacije socialno-kulturnega konteksta, njegove raznolikosti in specifičnosti. Mesta se ne smejo podrežati diktatu tržne logike in nesmiselnih investicij, ki se ne prilagajajo specifičnemu kontekstu družbe in prostora.

Hiperurbanizacija kitajskih mest v kontradiktornem političnem sistemu prevzema načela globalne ekonomije in hkrati pozablja na pomen družbenega kapitala. Njena fizična prezenca v megaprostorski in vsebinski formi Zahoda ne ustreza družbenemu kontekstu, podrejenemu političnemu nadzoru in integraciji sodobnih načel načrtovanja – raznolikosti, demokraciji in pravičnosti. Zato je v nadaljnjem razvoju kitajskih mest poleg interesov globalne ekonomije potrebno upoštevati tudi posledice družbenih spremembah, demokratična načela in pomen raznolikosti kitajske družbe in kulture. Potrebno je prekiniti s politično režirano ikonografijo in z nadzorovanimi množičnimi senzacijami ter zasnovati odprt demokratičen javni prostor, tako notranji kot zunanji, namenjen vsem generacijam, ki bi skozi znanost, kulturo in filozofijo izkušale in redefinirale odnose v sodobni kitajski družbi. Javni prostor mora postati prostor delovanja javne sfere, generator življenja sodobnih kitajskih mest, ki pripada vsem, ne glede na kulturno, socialno in politično prepričanje. Razvoj kitajskih mest mora postati domena družbene reforme in demokracije.

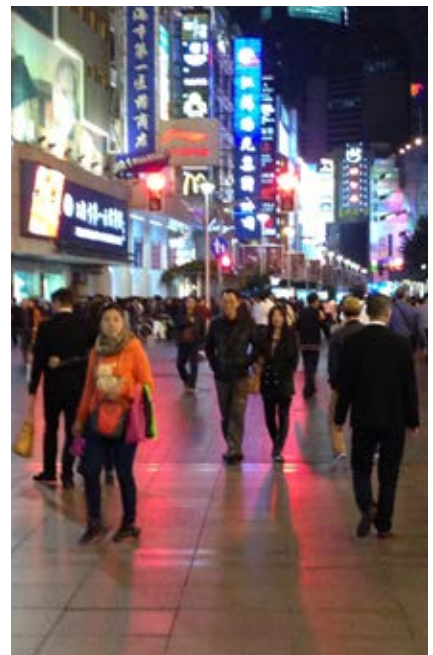
Slika 7: Ulice Meishi, simbol boja proti velikim urbanim načrtom kitajske politike. Rušenje soseske in tradicionalnih vzorcev skupnega življenja v hutongih za prihajajoče Olimpijske igre (iz filma Meishi Street, OU Ning).

Figure 7: Meishi streets, a symbol of the fight against Chinese policy large urban plans. The demolition of the neighborhood and the traditional patterns of communal life in the hutongs for the upcoming Olympic games (from the film Meishi Street, Ou Ning).



Slika 8: Ulica Nanjing – sodobni kitajski javni prostor v domeni potrošnje in zabave. Vir: Špela Hudnik.

Figure 8: Street Nanjing – a modern Chinese public space in the domain of consumption and entertainment. Source: Špela Hudnik.



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REFLEKSIJA ARHITEKTURNE INTERVENCIJE KOT METODA RAZISKOVANJA JAVNEGA PROSTORA

REFLECTING ON ARCHITECTURAL INTERVENTIONS AS A WAY OF RESEARCHING THE PUBLIC REALM

Ključne besede

raziskovanje v procesu oblikovanja;
kritična kreativna praksa; javni prostor;
predstavitve v arhitekturi

Key words

research by doing; critical spatial
practice; public realm; architectural
representation

Izvleček

V skladu s prevladujočim konceptom v teoriji političnih znanosti, naj bi demokracija slonela na razlikah, ki združujejo svetove različnih prostorov in ljudi. To pomeni, da javni prostor ne bi smel biti oblikovan izključno za določen del družbe, in da vsa mesta ne bi smela stremeti v kopiranje podob mest.

V pričujočem članku se posvečam povezanosti svoje lastne arhitekturne prakse in sodobne arhitekturne kritike z različnimi pogledi, in sicer z razumevanjem javnega prostora na različnih kontinentih, z različnih političnih pozicij in kulturnih ozadij. Predstavljam zbirko praks, pogledov in objektov, za katere menim, da lahko osvetlijo pristop k arhitekturi, ki upošteva in združuje merljivo in merljivo, vidno in nevidno. V članku so prikazane možnosti ustvarjanja javnega prostora iz delovanja in ne iz oblike, da bi razumeli svežino takšnega pristopa in izoblikovali orodja za izraz tega, kar vidimo, kar o tem razmišljamo in kako lahko uporabimo novo znanje iz takšnega raziskovanja. Članek je namenjen približevanju prakse in teorije, ne v medsebojno razlago, temveč za vzpostavitev skupne osnove za ustvarjanje novih misli in spoznanj v procesu načrtovanja in oblikovanja za prihodnost.

Abstract

According to prevalent conceptions in political theory, democracy should be based on differences to accommodate the worlds of many different places and people, which signify that public space should not be designed exclusively for one part of society and that all cities should not look in the same direction for city images to copy.

This paper seeks to draw connections between architectural practice and current critical spatial theory with different contemporary viewpoints on the understanding of the public realm across different continents, political positions and cultural backgrounds. It gathers a collection of practices, theoreticians and things that hopefully can explicate an approach to architecture taking the measurable and the immeasurable as well as the visible and the invisible into account. It explores the possibilities of creating public spaces from action and not from form, to understand the newness in such an approach and to find tools to express what we see, what we think about it and what we can do with that knowledge. The intention of bringing practice and theory in close relation to each other is not to have a mutual illustration of the two, but to provide a common ground for creation of new thoughts and insights when planning and designing for the future.

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1. Introduction

Since architects rarely design and build one to one, they need a medium through which they can create visions of the future. Today's mediums seem to be renderings consisting of pretty images, made for winning competitions or selling projects to developers. This way of communicating and having a dialogue about our common future does not take the invisible dynamics of a situation into account and does not allow architecture to be open to any modification or interaction with its surroundings. The renderings are usually concerned with portraying only the positive aspects of a development and are not able to address the depth of real-life situations, which include hidden dimensions such as "the feeling of things happening behind our back" together with territorial, economic, cultural, legal boundaries and limits that are drawn into the situation. However, this does not mean that these disruptive challenges do not exist. To change the world we live in I believe we have to understand the different systems involved in our depictions of the world, be critical of those systems and to develop the systems by interfering with them. To be able to explicate the character of the different systems in words, I include the concepts of Giorgio Agamben's "dark demon" in relation

to Abu Warburg's Mnemosyne Atlas, the spatial theory "Thirdspace" by Edward Soja, the Nomadology and Rhizome theory by Gilles Deleuze & Felix Guattari, the term "critical spatial practice" by Jane Rendell, the relation between public and private spaces, described by Shuddhabrata Sengupta, the relation between the formal and the informal city, depicted by Rahul Mehrotra, the concept of "agonistic pluralism" by Chantal Mouffe, Jacques Rancière's theory on aesthetics in relation to politics, Bruno Latour's "actor-network theory" and the role of artistic intervention in relation to the figure of trickster, described by Jean Fisher. [Agamben, 1999, Soja, 1996, Deleuze & Guattari, 1988, Rendell, 2006, Sengupta, 2012, Mehrotra, 2008, Mouffe, 2000, Rancière, 2004, Latour, 2005, Fisher, 2002]

2. Beyond representation

Going back to the 1920s, The Mnemosyne Atlas by "cultural scientist" Aby Warburg is an example of a work in motion, able at transforming solutions into questions. The constellation of images Warburg found meaningful himself, could all of a sudden come back as an unexpected and different assemblage in an insistent and disturbing way. In this way the Atlas proposes an art of the in-between. Philosopher Giorgio Agamben has

described Abu Warburg's method of research as a way to overcoming the borders of art history. 'It is as if Warburg were solely interested in this discipline solely to place within it the seed that could cause it to explode. 'The in-between disturbance of the images, becomes 'the dark demon of an unnamed science whose contours we are only today beginning to glimpse'. [Agamben, 1999: 90]

A different way of talking about the in-between could be the spatial theory "Thirdspace", created by urban planner and political geographer, Edward Soja [1996]. It employs a trialectic of spaces consisting of spatiality, sociality and history. Firstspace is the 'real' space – the built form of physical buildings that can be mapped and seen. Secondspace is the 'imagined' representational space (of architectural renderings) – the perceived space that can be seen and argued over. Thirdspace combines Firstspace and Secondspace to create what Soja describes as, 'a fully lived space, a simultaneously real-and-imagined, actual-and-virtual space where everything comes together and is a way of 'thinking about and interpreting socially produced space', where the spatiality of our lives has the same significance as the social and historical dimensions.

The way Thirdspace is always open to interpretation, never final but seen as a starting point for further exploration and modification, connects to the understanding of my own practice as an unfinished and open journey with no distinction between the journey and the destination.

In order to get beyond the simplified representation of situations I look at places within three different times and scales.

- Previous: The place as storage for history - Investigating
- Present: The place as a surface for action - Intervention
- Future: The place as a situation from where to look into the future for new visions - Projection

The investigations, interventions and projections do not claim to provide any direct answers or solutions. By nature they are incomplete and open for different perspectives. Often my favourite medium is the physical

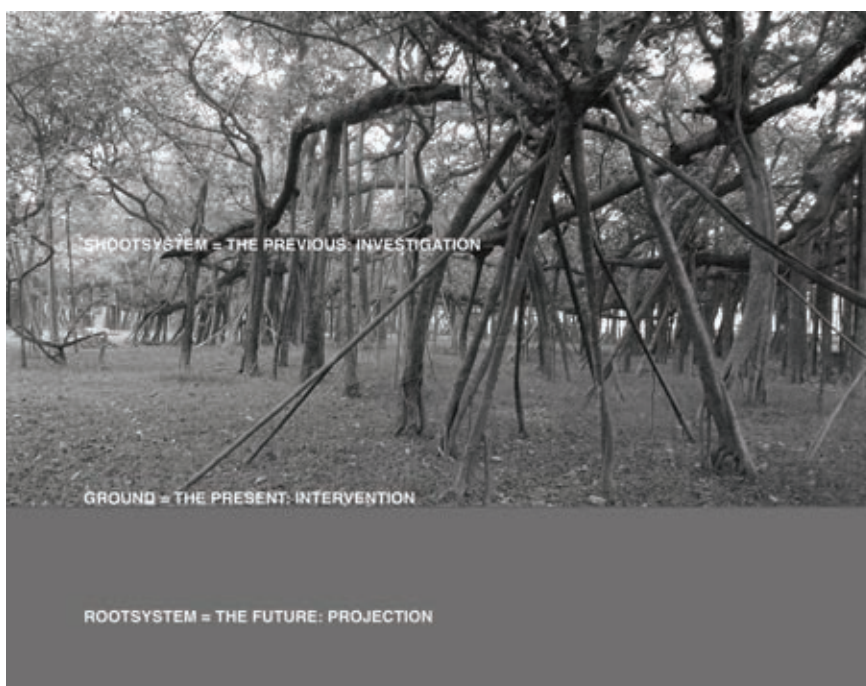


Figure 1: Horizontalni plezalec. Vir: Gitte Juul.

Figure 2: The Horizontal Climber¹. Source: Gitte Juul.

intervention, in scale 1:1 and built directly at places where people are, because interventions make it possible to dissolve the autonomous singularity of architecture via adjustment, expansion and opening to the outside environment.

3. The State and The Nomad

As an inspiration for how to operate with an open-ended process, I will point to Museum der Dinge [2015] in Berlin and how it in different ways tries to create a museum that avoids becoming a machine of representation, reproducing the stories and knowledge of the State Apparatus. It seeks to manifest itself as a museum, supported by the State, while at the same time constantly reinventing itself. By questioning how to exhibit things, how to value things, how to represent things and how to tell stories, Museum der Dinge reminds us that there is not only one history, but history is something we produce and interpret ourselves. To be involved in the State Apparatus simultaneously with questioning the foundation of the State is a challenge that I work with in my own practice. I run the project space The Office for Art in Town, [Kontoret for Kunst i Byen, 2015] which seeks new knowledge by constantly reinventing itself in relation to its surroundings. It is initiated by The Municipality and the local Art Council in order to create a space for self-reflection. It questions the conventional rules and systems of the authorities, aiming at disturbing its foundation in search of alternative ways of thinking about city planning. The challenge is how to be involved with the municipality parallel with producing critical actions on the streets belonging to the very same municipality. The actions of The Office balances the fine line between being dismissed and excluded by the authorities or absorbed in their system as an accepted part of the administration. Neither position is motivating, since The Office for Art in Town would lose its progressive and dynamic energy, if institutionalized. The exercise is to keep a healthy distance to the municipality and at the same time get permission to act critically in public. By working with art and architecture in scale 1:1, directly among and in collaboration with

citizens, The Office seeks to lift the discussion out in public space, which enables a practice parallel to the usual planning strategies of the Municipality. Physically The Office for Art in Town is moving around in the city centre of Ballerup occupying empty shops, streets and squares in a progressive manner, in order to initiate a dialogue and produce new types of situations and spaces. The overall aim is to push the boundaries for what is conventionally accepted in the public realm and to empower citizens to challenge the authorities when it comes to planning of our common living environment. The gesture of The Office for Art in Town is not a verification of art as an individual creative expression contradictory to the municipality, but rather a way to present art as something concerning the common living environment. To point to the crossroad where authorities and artistic practice intersect in a productive manner.

I use the concept of Nomadology by Gilles Deleuze & Felix Guattari [1988] to elaborate on the relation between authorities and artistic practice. They describe the State Apparatus as a static space where it is difficult to create new knowledge, since it just reproduces its own stories and knowledge again and again in order to legitimize itself. The Nomad refuses to repeat these stories, but thinks and moves across the norms of the State Apparatus, seeking alternatives. Deleuze & Guattari use the Rhizome to describe the characteristics of the Nomad. The Rhizome is a root system that respects no borders and

Slika 1: Mestna pisarna za umetnostno ustvarjanje.

Slika: Gitte Juul.

Figure 3: The Office for Art in Town. Photo: Gitte Juul.



does not grow from the bottom up, but horizontally from the centre out. It has no clear demarcation, no beginning and no end. Everything is connected in a way that makes everything lead to everything and all forms of movement affect each other. The rhizome operates beneath the surface, while it challenges the principles and systems above ground level. The long and branched rhizomes of the root system retain their survivability, even in tiny pieces.

In my practice I seek to work with the unknown state of a project. Sometimes a project starts by chance and I improvise along the way. I let the project develop while I am doing it and this way the process might be able to tell about our behaviour, our gathering and our outlook towards the world.

This was the case with Stadium NOWHERE, [2015] – a project that began by chance and got developed while being an ADAPT-r fellow at the University of Ljubljana, School of Architecture. [ADAPT-r, 2015] The project dealt with unfolding the story of the Bežigrad Stadium by Slovene architect Jože Plečnik, which is a place having difficulties in adapting to new circumstances. A current dispute around the redevelopment of the Stadium exposed general questions about the collective behaviour, rationales and ideals of society and Stadium NOWHERE can be seen as a response no one has asked for, produced by an outsider in order to learn about a society and its mechanisms. Behind this process there is a system for investigation, collecting, collaborating, building,

recording, editing and exhibiting. In order to explore history making as a participatory experience, I invited students from the Faculty of Architecture to contribute. We searched for material in the local community, institutions, libraries, on-line, museums, archives, books, films and TV broadcasts. We discussed with people who work politically and critically with urbanity in Ljubljana and with people directly involved in the conflict: the citizens, the investor, the Municipality and the Institute for Heritage Protection. When you don't understand a situation you can try to understand the logic behind the aspects of the conflict. So we decided to unfold the story of how Bežigrad Stadium got made and un-made by visualizing history as a dynamic series of situations, where history was portrayed as an observation of both "historical moments" and everyday occurrences. "Historical moments" with architectural visions, religious ceremonies, military ceremonies, sporting events, commercialization, cultural heritage issues and environmental/ neighbourhood issues, built as seven, nomadic, physical structures, manifesting the passage of time. The structures were walked around among Joze Plecniks buildings in the city centre of Ljubljana, aiming at questioning social and legal norms in dialogue with everyday urban life. It was an interaction between materials, physical urban space and people using the space, in order to create a dynamic and open-ended presentation of the future for people to discuss.

According to the French scientist and philosopher Bruno Latour and architectural theorist Alben Yaneva, [Latour & Yaneva, 2008] a building cannot be reduced to what it is and what it means. They claim that buildings should be understood in terms of process, movement and transformation, which can't be represented in Euclidian space. Buildings are continuously influenced by and "lived" through dynamic relationships with their inhabitants and surroundings. Latour and Yaneva also claim that non-living things are able to act and respond to different situations. Buildings unconsciously resist or submit to climatic conditions, unforeseen events and diverse shifts in use. With this conception of buildings

Slika 2: Prostorska instalacija NOWHERE. Slika: Gitte Juul.

Figure 4: Stadium NOWHERE². Photo: Gitte Juul.



in mind, Stadium NOWHERE tried to reveal the existence of the Stadium by exposing its disputes and performances over time: how it had resisted attempts of transformation, challenged city authorities and mobilized different communities of actors. The project was brought out to the public through action in motion and time rather than through static image production. We wanted to visualize the democratic exercise of power, the legal system and its administration, language and execution and to move these things from a distanced bureaucratic space to an open space in direct relation to people. Being presented by seven physical structures walking in a row and a chronological timeline showing historical facts, Stadium NOWHERE crossed the border between abstraction and reality. It opened questions more than providing any solutions to the Stadium conflict. The unsettled present could be seen as a motion from the events of the past to the hope for the future. While revealing the boundaries between language and action, administration and construction, institution and public, it related to the specific history of the Plečnik Stadium in Bežigrad, but also to the Stadium as a type in general; a space which is neither here nor there and which have more layers of meaning and relationships to other places than immediately tangible. The intervention revealed the difficulties in working with a situation in an on-going conflict, where the involved parties are afraid of speak up in public. Earlier, political systems and strong ideologies made dialogue difficult because of polarization and the determinate solutions embedded in these ideologies. With today's complex reality, a dialogue that comes before political decisions is fundamental.

Often art and architecture are thought of differently in relation to the term "function". Conventionally, I believe, architecture predominantly works with functions while art often works with dysfunctions. My practice seeks possibilities for working between these two categories. Running a practice mainly working with things I can build myself, puts me in a position that allows me to work in-between art and architecture and reflect on what I build and the



Slika 3: Durga Puja, množično obiskan letni hindujski festival. Slika: Gitte Juul.

Figure 5: Durga Puja, the large annual Hindu festival. Photo: Gitte Juul.



Slika 4: Odprta kuhinja na ulici. Slika: Gitte Juul.

Figure 6: Street Kitchen. Photo: Gitte Juul.

surroundings relationship to it. The goal of the work is to communicate the relations between people and things in a conscious way for us to reflect on and understand ordinary everyday activities as specific cultural actions.

4. Critical Spatial Practice

Professor of Architecture and Art, Jane Rendell [2016] has suggested the term "critical spatial practice", describing work that transgresses the limits of art and architecture and engages with the social and the aesthetic as well as the public and the private. This term draws attention not only to the importance of the critical, but also to the spatial, indicating the interest in exploring the specifically spatial aspects of interdisciplinary processes or practices that operate between art and architecture. Rendell points out, that boundaries drawn around notions of private and public are not neutral lines, but contours that are culturally constructed and which indicate specific value systems. Public and private, and the variations between these two terms, can mean different things to different people – protected isolation or unwelcome restraint, intrusion or invitation, exclusion or separation.

Anthropologist Mark Vacher has critically examined boundaries and categories separating public and private spheres in some of my projects in the Copenhagen suburbs of Herlev and Ballerup.

"The artworks, then, provide no direct answer for how we can deossify the suburbs. But by blurring the borders, we reveal the true character of the urban space, especially the way the ossified elements have become ingrained in its fixtures, its vegetation, its traffic regulations, its laws and its ordinances. Indirectly, the works suggest where, and how, we can improve things in the future. The potential would appear to be at the border, because it is here that things can go from being one thing to being something else." [Vacher, 2015:32]

To really understand the public realm and what we can do with it in the future, we need to discuss what the public realm is, and for whom it exists. In my practice I work with different conditions and situations

dealing with local, regional, national as well as global matters, which makes Rendell's point of cultural constructions important.

5. Public Spaces and Private Acts

Different societies understand the distinction between public and private spaces in different ways. Shuddhabrata Sengupta [2012] from Raqs Media Collective in Delhi talks about the street as a place where the public act and the private motive can get to know each other. He describes how the European planning model, with its public squares, public institutional buildings, public parks, public streets and private homesteads is a binary arrangement, while other societies and cultures have found other ways of articulating the public-private relationship. For example in Asia where courtyards, kitchens, terraces, pavements, encroachments and annexes are more entangled. In this situation the boundary line that separates public and private life and allows provisional but permanent in-between zones is constantly repositioned. Sengupta describes how for instance Indian city planners often are thinking of the old colonial cities in the same way they think of European cities; - formal, ordered, stable and predictable with architectural objects as the spectacle, although the formal city was surrounded by the informal city where architecture has always been less significant. The informal city is defined by the rhythms of the day and temporal spectacles provided by the seasons.

Professor at MIT, Rahul Mehrotra, [2008] argues that Indian megacities no longer can be understood as a dichotomy between the formal city and the informal city. As the cities are becoming megacities, this dichotomy has blurred in reality, but at the same time, the binary perception of the formal city versus the informal city has grown stronger. Mehrotra explains that the middle classes don't always live and work in the formal sector, and the poor don't always live and work in the informal sector. Today informal residents are often employed in the formal sector and vice versa, and the informal economy does also contribute financially to the formal sector through bribes and other payments to various formal

authorities. According to Mehrotra, the authorities hope to copy the condition of city-states such as Singapore and Hong Kong, where architectural 'objects' represent the city. Mehrotra argues that these types of city images are far from the reality and the spirit of the Indian megacities, and not only do they marginalise the poor, but they also misunderstand the behaviour of the middle class and the rich. Mehrotra suggests that authorities should appreciate how streets and spaces are used from hour to hour, day to day and throughout the year, and try to understand how the poor, the middle class as well as the rich adapt their living patterns to the density of the city. Mehrotra proposes an understanding of a city where events and changes in time are more important than monuments and physical places. He calls it *The Kinetic City* - a city about activity, not architecture. *The Kinetic City* sees its dense streets as social and commercial interaction, patterns of socioeconomic behaviour that must be allowed to develop, instead of seeing it as crowding and poverty to eliminate. The interactions that take place on the streets are all enterprising activities, economic opportunities being created and developed by residents of the city. According to Mehrotra, city planning should work out how to plan and design streets, spaces and new areas in such a way that these patterns of activity can flourish in greater comfort for all residents. In this way *The Kinetic City* could become a commercial city - not only in image but also in action.

For places to become commercial in action and not in image, I believe architecture needs to shift position from form to action – from what a thing looks like to what it is able to do. By intervening in real space in scale 1:1, in real time and in everyday realities, architecture is able to empower communities and allow interaction. The interventions have the possibilities to record movements and behaviours, as well as stimulate aspirations for future arrangements of public spaces.

According to political scientist, Chantal Mouffe [2000] it is important to accept the public realm as a conflict space and a battle zone and that it always involve a separation between

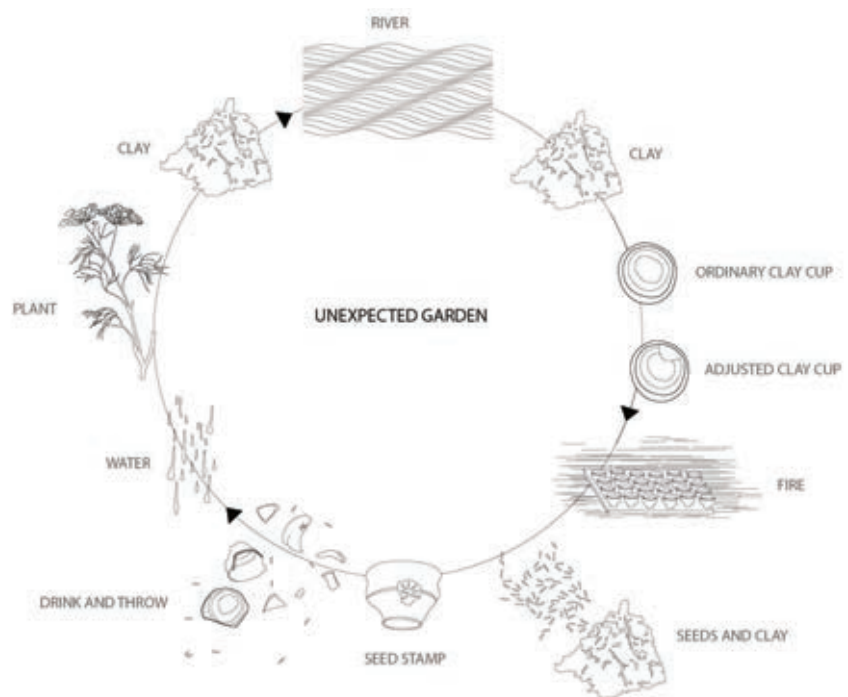
"us" and "them", since it is necessary with a reference to a clear outside for the creation of an inside identity. To create a democracy that acknowledges the existence of an opposition and at the same time is able to establish a pluralist space where these forces can meet in a non-violent manner, Mouffe proposes a theory, which she calls "agonistic pluralism"; - a situation where the opposing parties recognize each other without seeking consensus. Mouffe talks about public space as a "constitutive plurality"; - a constantly challenged, non-symmetric space and a battleground tense with all the insecurities that result from struggles for hegemony. She sees a role to play for artistic interventions in public space, where "site specificity" empowers the site with a disruptive energy and expose hidden contradictions of the site. In this sense the public realm can be seen as an on-going experimental construction.

In the same line the French philosopher Jacques Rancière [2004] argues that the political sphere has been drained from disagreements and disputes by the force of neo-liberal consensus. Rancière suggests a way of working that constantly crosses the borders between art and everyday life in order to be able to have a necessary discussion about the politics of aesthetics. He connects aesthetics to politics by their common characteristics: the demarcation between the visible and the invisible, the audible and the inaudible, the thinkable and the unthinkable, the possible and the impossible.

An example from my own practice, dealing with the tension of the public realm is the intervention Street Kitchen, [2013], which partly took place in Kolkata, India. Public spaces and private acts battle in Kolkata and the aim of the intervention was "to combine the streets formal and informal systems into a symbiotic relationship by opening an installation between a cake shop and two street vendors. Built like a mobile teahouse, the installation was a hybrid of a house and a street vendor stall. It was also a latent garden, offering

the possibility of creating a garden with edible plants at the base of the adjacent banyan tree. Through the teahouse, the project was able to explore traditional handicraft, materials, botany, artefacts, the city, the political, social and economic systems, and not least the people and actions behind them. The idea was to investigate how organised shops and disorganised vendors can coexist, and how the foreign interacts with the familiar, and vice versa. The cake shop delivered cakes to the teahouse, which in turn served tea in the porcelain cups. The clay cups were thrown at the foot of the Banyan tree, while the porcelain was washed by the neighbouring vendor, from whom the teahouse also bought its tea". [Juul, 2015:25]

The boundaries, limitations and paradoxes were made visible and hierarchies disturbed in a situation where it was not legal to put up things. In this situation the tangible boundaries were on the level of infrastructure, law and corruption. The intangible boundaries were located in peoples thinking, supporting the hierarchies of society. The aim of the intervention was to blur the boundaries in a way that made it unclear what the limits were and what was accepted in order for people to think for themselves and start a dialogue.



Slika 5: Življenjski ciklus glinene posode. Risba: Michael Lyng Jensen.
Figure 7: Clay Cup diagram. Drawing: Michael Lyng Jensen.

For Bruno Latour [2005], a central question is what is brought into the public. What are the issues and contents that should become matters of public concern? Understood as a space for making things visible and accessible, it becomes important to notice all that is not visible in public. In his "actor-network theory", Latour speaks towards new collaborative constructions, where people as well as non-human "co-actors" can be included in the creation of the environment. The idea of "actor" signals movement, event and action and the idea of "network" indicate accumulation of resources, transformation and translation of different approaches.

With the idea of Latour's "co-actors" in mind, it becomes possible to understand people, things and places within a simultaneous framework of form and relation. Things in themselves become less important. The importance lies in what role things can play in a situation and what they reveal when people are using them. The things become tools for revealing the unseen. They do not refer to future possibilities because of the way they look, but because of their properties and the knowledge behind the things.

During the Street Kitchen project, mentioned earlier, the Flora Indica Clay Cups [2015] was designed. The cups are a modification of the traditional handmade clay cup to be found on every street corner in Kolkata, where small stalls use them for serving tea. Once the tea has been drunk, the cups are smashed on the ground and when the rain comes, they are turned back into the clay from where they originated. The Flora Indica Clay Cups are created in collaboration with local potters and are a tribute to the founder of Indian botany, William Roxburgh, and his 1824 book *Florica Indica*, and also a reference to the exclusive Danish tea set *Flora Danica*. The seeds from the Indian flora are embedded in the clay cups, so when thrown and smashed after use, the seeds are dispersed and given a chance to grow when the rain comes [Juul, 2015]. The knowledge

behind the making of the Indian clay cup and the Danish porcelain goes back in generations. With Rancière in mind, "architecture intervenes in the general distribution of ways of doing and making" [Rancière, 2004]. By infusing the clay cup and the porcelain with the ritual and symbolic significance as well as the social, political, and economic significance, people could gain insight into the processes of making from raw material to finished object and into the arranging of materials in relation to their aesthetic qualities and their power to signify.

6. Disorder and Order

The art theoretician Jean Fisher [2002] argues that disorder – and not order – is the norm of the reality of humanity and that hegemonic structures of power are having difficulties in controlling chaos, since it sustains a latent kind of resistance. Fisher discusses the role of artistic intervention together with the figure of trickster - introduced not in order to dissolve conflicts, but rather as a way to open up the complexity of a situation. Trickster is a boundary crosser, which disrupts and reshapes the world around him. Lewis Hyde [1998] describes how Trickster is the "mythic embodiment of ambiguity and ambivalence, doubleness and duplicity, contradiction and paradox". The trickster can "bring to the surface

a distinction previously hidden from sight". Trickster appears in folk tales, passed through generations by word of mouth, where he crosses class divisions and connects the local to the universal. He slips away from domination and control, shaping and determining his own route. As a boundary crosser he is a marginal figure, able to disrupt status quo of a situation and having the ability to create new ways of seeing the world to different members of society.

As Fisher explicates, the trickster activities are concerned with acts of mind rather than with objects of visibility. The activities offer no explanation in themselves and no definitive meaning, but something for others to reflect upon.

"If our understanding of the world is largely through mediated representations and ideologies, then the first criterion of a tricky practice is the acknowledgement that we operate in a world not of self-evident "truths" but of institutional fictions revealed as grotesque monsters, where art is not a reflection of an authentic "reality" but a simulation that intensifies our experiences and interpretations of its effects. It demands a performative use of language: a direct address in collaboration with the viewer. It insists on putting back into circulation excess expenditure



Slika 6: Izdelava glinenih prosodic v okviru Flora Indica Clay Cup. Foto: Desislava Minchea.
Figure 8: Production on Flora Indica Clay Cup.
Photo: Desislava Minchea.

- the remainder, the debt, the discarded, or repressed, and works through a mobile opportunistic re-appropriation and manipulation of hegemonic codes.... It provides an internationally understood matrix, which can be filled with different contents, from different cultural time-space: since different cultures experience differing rates of change, the installation can incorporate multiple spatial/geographical and historical/temporal dimensions". [Fisher, 2002:68].

7. Conclusions

The quote from Fisher pretty much sums up what this paper is aiming at. To bring an extra level of understanding to the way we think and construct space in a complex world. To create a platform for experimentation and collaborative work with action-oriented interventions in public space, where the interventions can provide a means by which disorders can be addressed / discussed and maybe even turned into something positive. As this dialogue with spatial theory has indicated, we need to reveal the complexity of the public realm and expose the non-visible by creating situations that give space for what we cannot imagine ourselves. We need to pay attention to the forces of architecture and what it is capable of doing to the surroundings instead of focussing on architectural form only. We should be interested in what is incorporated in the things, more than in the things themselves, what is haptic instead of optic and what is rhizomatic instead of figurative. With the examples from my practice I hope to have demonstrated that it is not necessary to create monumental, iconic and finished projects to construct public spaces of identity. It seems to be forgotten, that spaces only need minimal interventions and modifications to be activated. The interventions can help focussing on cultural history as a network of endless complexes wherein the uncertain and incomplete are positive elements. History can - as the Atlas of Abu Warburg showed us - be an incomplete work in motion that invites everyone to co-write. It is through the shared and common experience that architecture can ask questions to the perception of the collective memory and public realm. Today's architects

could avoid the homogenous and one-dimensional images of society by paying attention to the disturbing elements in a situation and by insisting on the mottled and complex character of the world, in the need of different futures to suit different places and different people. Maybe 'The dark demon', that Agamben refers to, could be what architecture needs to investigate in order to get beyond the simplified representation of the future.

List of projects

The Office for Art in Town (2011- 2013)

Project space initiated and commissioned by Ballerup Art Council and Ballerup Municipality.

Street Kitchen (2013)

Intervention initiated and developed by Gitte Juul and carried out in part in Kättismåla and in part in Kolkata in cooperation with local street vendors and craftsmen, visual artist Anja Franke, local collaborator Dev Nayak and architectural students Desislava Minchea and Michael Lynge Jensen. Street Kitchen received economic support from Dreyers Fond and Esther & Jep Finks Fond for Arkitektur og Kunsthåndværk.

Stadium NOWHERE (2015)

Intervention initiated, developed, executed and exhibited by Gitte Juul while an Adapt-r fellow in Ljubljana in collaboration with students from the University of Ljubljana, Faculty of Architecture and MAO- Museum of Architecture and Design.

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Notes

1. The Banyan Tree is the national tree of India. In the Gujarati language, banya means "grocer/merchant" and eventually "banyan" became the name of the tree itself - a tree under which Hindu merchants can conduct their business. The tree provides a shaded place for a village meeting or for merchants to sell their goods. It starts its life as an epiphyte (a plant growing on another plant). In Kolkata there is a specific tree, called The Great Banyan, occupying 14500 square meters with 3300 aerial prop roots reaching down to the ground. Normally every trunk is typically connected directly or indirectly to the central trunk, but The Great Banyan has lost its main trunk and become a "columnar tree" without a central core. Topologically the tree is an endless structure of interconnection due to its seemingly unending expansion in all directions.
2. Stadium NOWHERE was inspired by American architect John Hejduk, [Hejduk 1989] who had a nomadic practice and worked critically with a sensibility that actively read specific situations. He created a travelling architectural tribe of objects that followed him where he went on his travels. They acted as a memory of places and situations and invaded cities while disturbing hierarchies. They were strangers that questioned social and legal norms while constructing situations in different cities through Europe, where they explored how nomadic spaces can intersect with static spaces of established urban realms.

Recenzije / Review

In times when individuality is an attitude that prevails in our societies and manifests itself in different aspects of life as it is the conception of our dwelling space, all efforts to reflect on and act in the public, social space are important to prevent future meaningless interventions that transform cities with character and own spirit in "no man's land".

This article explores the possibilities to approach architecture following the visions of currently leading theoreticians that point out the event, the action that "creates" architecture while not stressing so much on the form. Practice and theory in close relation to each other, provide a common ground for the creation of new insights in future architectural design. In my opinion, the most interesting aspect of this contribution is that it clearly highlights reflection on our ideological inheritance from modern architecture to these days, opening questions and generating intellectual challenges for those engaged in the limitless word of architecture.

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GARDEN VILLAGE BLEED GLAMPING KOT INOVATIVNA REVITALIZACIJA DEGRADIRANE KRAJINE

GARDEN VILLAGE BLEED GLAMPING AS AN INNOVATIVE REVITALIZATION OF DEGRADED LANDSCAPE

Ključne besede

glamping; Garden Village Bled;
revitalizacija; ekološki turizem;
sonaravno

Key words

glamping; Garden Village Bled;
revitalization; ecological tourism;
sustainable

Izvleček

V članku želimo prikazati značilnosti glampinga, ki v zadnjem času tudi v Sloveniji pridobiva na prepoznavnosti ter se pri kratki raziskavi tematike naslonimo na lastne ugotovitve skozi delo na realnih glamping projektih (kot npr. Garden Village Bled v Sloveniji), na tuje primere dobre prakse (iz Avstralije (The Longitude 131° resort), Afrike (Nomad Tanzania) in Kanade (The Clayoquot Wilderness Resort)) ter na redko literaturo, ki tovrstno tematiko obravnava. Predstavljene so nekatere glavne značilnosti glamping letovišč, kot so ekološko, edukativno in kulturno naravnost panoge, ki skozi svoje delovanje povezuje lokalno prebivalstvo in izročilo (primeri aktivnega povezovanja in edukacije o aboridžinski kulturi v Avstraliji, izobraževanja lokalnega prebivalstva in gostov o vrednostih in pomenu ohranitve divjih vrst v Afriki ter vključevanja indijanskih plemen v delovanje letovišča v Kanadi) s trajnostnim turizmom. Nekateri glavni problemi pri raziskovanju glampinga, ki jih članek oriše so: pomanjkanje relevantnih raziskav in literature ter negativni prizvok, ki ga ima glamping v Sloveniji in po svetu, kar verjetno pripomore tudi k slabi raziskovanosti pozitivnih učinkov glampinga kot nove, nišne panoge v turizmu.

Abstract

The paper aims to show the characteristics of glamping, which is only recently gaining more recognition also in Slovenia. The short survey leans on our own findings through our work on real projects (such as Garden Village Bled glamping resort in Slovenia), on foreign examples of good practice (from Australia (The Longitude 131° resort), Africa (The Longitude 131° resort) and Canada (The Clayoquot Wilderness Resort)) and rare literature that researches glamping. Some of the main characteristics of glamping are presented, such as ecological, educational and cultural nature of the sector, which through its activities connects local population and traditions (for example active integration of and education about Aboriginal culture in Australia, the education of local people and visitors about the value and importance of preserving wildlife in Africa and the integration of Native Indian tribes in Canada) with sustainable tourism. Some of the main issues in the research that the article outlines are: the lack of relevant research and literature as well as negative connotation that is connected with glamping in Slovenia and abroad, which probably contributes to the poor research on the positive effects of glamping as a new niche sector in tourism.

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1. Introduction

The paper focuses on glamping as a niche sector in (ecological) tourism through examples of good practice from Slovenia (a revitalization of a neglected site, a former plant nursery of Vila Bled into glamping resort Garden Village Bled) and abroad (Africa, Australia and Canada). Glamping as a new trend in tourism is rather unexplored in academic literature and so an appropriate topic for this short study. Garden Village Bled [Garden] presented in the paper, set a new course of tourism development in Slovenia, in an already established tourist destination - town of Bled, when it opened in 2014. Bled is known for its recognisable vistas - the castle on the hill, the church on an island in the middle of the Lake, etc., but lacks innovative tourist experiences, services and products. The project, an innovative revitalization, focusing on sustainability and luxury at the same time, was carried out mostly on site by local craftsmen, knowledge and materials. The design of the resort was based on local architectural heritage and prioritised minimising the cost following a low-tech design approach. The revitalization of the site answered the questions of sustainable yet luxury tourism and catered to the requirements of the client, the project scope and budget and the characteristics of the site. The glamping project has been successful since its opening in June 2014 and recognisable abroad and in Slovenia,

published in major newspapers and shared on social media and blogs. The project Garden Village Bled and its creators (designers Borut and Barbara Kokelj and architects Gregor Vreš, Tina Demšar Vreš, Miloš Jeftič) are also recipients of several awards at the national level, such as the Green pencil in 2015 (given by the Chamber of architecture and spatial planning of Slovenia), Snovalec award in 2014 and Sejalec award in 2015, which are given to the most innovative tourism products from 2004 (by the Slovenian Tourist Board) and as such an appropriate example of good practice for this paper.

2. Research problems and aims

Main focus of the article is set on the following issues:

- the slightly negative connotation of glamping in Slovenia [Sajovic, 2014],
- characteristics of glamping that go beyond luxury ('high price labelling') and
- glamping as an innovative niche in tourism industry.

These topics are discussed through selected foreign examples of good practice, such as the Clayoquot Wilderness Resort (Canada) and the Longitude 131° resort (Africa) and the implemented project of Garden Village Bled (Slovenia). The subject of glamping as a possible innovative revitalization tool and ecological tourism development theme is observed through the few



Slika 1: Garden Village Bled – Vrtna vas Bled, glamping letovišče na območju nekdanje, zapuščene vrtnarije Vile Bled.

Figure 1: Garden Village Bled, glamping resort build on the remains of former plant nursery of Vila Bled.

published papers on the subject, foreign examples of three selected resorts that work with local cultures to sustainably develop natural and cultural surroundings (such as Clayoquot Wilderness Resort, Longitude 131° resort and Nomad Tanzania) and more so through the observations and hands-on experiences gained in creating and implementing the Garden Village Bled glamping project in Slovenia. Since there is a lack of academic research papers on the topic of glamping, the paper acknowledges the limitations of this short study, while hoping to open new questions about this interesting and new niche sector that successfully merges (natural and cultural) heritage, modern design, local architecture and tourism.

3. The characteristics of glamping

The knowledge about glamping is, as Sakáčová [2013, I] describes, restricted to a short explanation as luxury camping or glamorous, upscale camping [Conlin, 2012]. The main idea behind glamping is to bond with nature without having to sacrifice the luxury of a home or a hotel, but when researching the topic further, glamping consists of several other important themes, not just that of luxury and high price as perceived in the public [Sajovic, 2014]. Sakáčová [2013] describes that the main motivations for glamping vary: to experience the environment, escapism, rest and relaxation, recreation and bonding (of families or romantic couples), etc. Glamping is usually set in nature of significant value, such as is the

case of the Longitude 131° resort in the wilderness of Australia, set in the Uluru-Kata Tjuta National Park. The resort connects visitors with the rich aboriginal culture of the region. The Longitude 131° resort is nestled in a World Heritage listed cultural landscape, most known for its iconic red monoliths, the sacred red domes of Uluru and Kata Tjuta [Longitude]. Another example of a resort that is strongly connected with the natural and cultural surroundings in which it resides, is the Clayoquot Wilderness Resort in remote Canadian wilderness outside Vancouver. The resort, according to their web site, has spent millions of dollars rehabilitating miles of salmon spawning grounds in partnership with the native Ahousaht people through the Environmental Legacy Program that provides economic development in the local community [Clayoquot].

What is also interesting in researching these and other examples (Nomad Tanzania, Garden Village Bled) is the socializing aspect of glamping—the 'get to know the local people, food and culture' aspect while also emphasizing the privacy that glamping offers and that glampers expect. This is recognised for example in the philosophy of Nomad Tanzania - life, love & the pursuit of wilderness. The Nomad Tanzania is a 20 years old East African Company that manages small safari camps in three of the remotest corners of Tanzania. The company, since its inception, invests in local communities and individual people through micro-finance loans for starting small businesses, through training of new local

Slika 2: Pogled na letovišče Longitude 131° razkrije njegovo umestitev v izjemno kulturno krajino, puščavsko okolje narodnega parka Uluru-Kata Tjuta, s pogledom na svetovno znano skalno formacijo Uluru (Ayers Rock) v ozadju.
Figure 2: The view over the Longitude 131° resort reveals its placement in the spectacular cultural landscape, the desert environment of Uluru-Kata Tjuta National Park, with the famous monoliths Uluru (Ayers Rock) in the background [source: <http://longitude131.com.au/> ; <http://vintage.johnnyjet.com/folder/archive/WheresJohnny052420062.html>].



guides, employment opportunities and education (through the Nomad Trust) and through special attention and investments being forwarded to conservation of nature and wildlife. The camps (ten camps in Northern, Western and Southern Tanzania) move with the migrating routes of the herds that live in the National parks (the Serengeti National Park, Tarangire National Park, etc.). Guests (also glampers - the word glamer is derived from glamping) can also contribute and support the locals directly through funding of meals in schools, teacher's salaries, building classrooms and Save the elephant's project that is coordinated with the Frankfurt Zoo and the government of Tanzania [Nomad].

Different factors described above and below (such as the synergy between the local population and glamping projects, sustainable and eco-friendly design solutions, local heritage integration, recognition and education, etc.) should represent the base for developing future glamping projects that could be integrated in the local communities and as such be successful in the long-term. Sakáčová [2013] describes, that it is possible to distinguish between two groups of glampers— resort glampers and caravan glampers and that glamping resorts should be designed accordingly. Both groups of glampers though wish to be close to nature but do not want to give up the comforts, seek relaxation but also adventurous outdoor activities. Other push factors in glamping, as Sakáčová [2013] describes, are:

- closeness to nature,
- resorts often set in extraordinary landscapes,
- luxury, high quality services and comfort,
- unique activities and recreation.

To the before mentioned, we could, on the basis of selected examples of good practice and our own experiences (gained through the Garden Village Bled glamping, Ljubno Herbal glamping for Charming Slovenia brand and the latest glamping product for Adria, with Glampro – the first Boutique Mobile Tent), add the following:

- connecting the tourists with local people, heritage and nature,
- high quality recreational, health and spa services,
- high quality gastronomy,
- eco-friendly philosophy (self-grown food, re-used materials, eco-toilets, natural swimming pools, separation of garbage, ecological means of transportation, etc.),
- recognisable, locally inspired modern design and architecture,
- family-friendly,
- privacy.

Through synergy of glamping (tourist development) with the local environment, glamping projects can play an important role in revitalizing and developing new tourist destination in a more sustainable manner than for example large scale, enclosed and alienated

Slika 3: Pogled na eko-safari letovišče Clayoquot Wilderness Resort v Kanadi, kamor gostje prispejo z zasebnim letalom ali čolnom, je odprto od maja do septembra in nudi pristno izkušnjo narave vsem starostnim skupinam pod vodstvom lokalnega indijanskega plemena Ahousht First Nation.

Figure 3: The view of the eco-safari Clayoquot Wilderness Resort in Canada, where guests arrive by the private plane or boat, is open from May to September and offers a genuine experience of nature for all age groups, led by local Indian tribe Ahousht First Nation [source: <http://www.wildretreat.com/>].



hotel developments. The following chapter observes Garden Village Bled through described factors in glamping tourism.

4. The characteristics of Garden Village Bled resort development

The site and the Garden Village Bled glamping resort are in private ownership. The project started in 2013, with investor Borut Kelih and graphic designer Borut Kokelj meeting on site of a former plant nursery that was too small to be profitable in the future. The site did not have open views towards the lake Bled and was nestled between the single-family homes and small apartment buildings. Lack of 'extraordinary landscape' meant that the design had to look for inspiration from within and create its own identity. Landscape d.o.o. team- Gregor Vreš and Tina Demšar Vreš was invited to design the project with Borut and Barbara Kokelj and the idea of a Garden Village was carried out through the entire design and construction process. The program of the former nursery was a starting point for the glamping resort design - the idea of a secret garden was developed, a self-grown food spot where the visitors could pick fruits and vegetables, go fishing and prepare the food themselves. The location was problematic, since the site consisted of two very different characters, one gently sloping and open, the other forested and dropping some 20 meters down towards the existing stream Jezernica. At the same time, the dual character of the site was the inspiration for the design of the resort. On one side there will

be sunny, open and highly 'cultivated' terraced fruit and vegetable gardens, with tents and natural swimming pool. The opposite - the cool, dark and wild forest landscape will hide the wooden treehouses and the small tents by the stream, floating over a small pond where guests could catch trout's straight out of bed. The upper part of the site offered enough space for the placement of large glamping tents suitable for families. The tents were settled in lush vegetable and fruit gardens, each with its own wooden hot tub and large terraces. The existing building structures were renovated by architect Miloš Jeftič. Natural swimming pool with infinity edge, stream running through and a small children's playground were designed along with glasshouses in which food grows for the guests to enjoy. In 'the forest', on the steep slopes towards the stream, treehouses were designed, high above in the treetops, constructed on site in local larch wood and by local craftsmen, who actively contributed to the design details, like the wooden lock and key, originating from the shepherds huts in the surrounding hills.

An outdoor spa area consists of a sauna, massage and Kneipp area, a natural stream with pebble beach and yoga and meditation areas. The resort, especially the forested part, leaves nature free with all the new construction raised from the ground. This decision created the space and the opportunity for nature to reclaim and revitalise the degraded landscape. The main building material of the resort was (larch) wood, locally sourced and treated without chemicals, with natural



Slika 4: Glamping Nomad Tanzanija Serengeti Safari camp v Afriki, ki sledi migracijam čred divjih živali v parku Serengeti.

Figure 4: Glamping Nomad Tanzania Serengeti Safari camp in Africa, that follows the migrations of herds in the Serengeti park [source: <http://www.wildretreat.com/>].



Slika 5: Različni značaji Garden Village Bled glamping letovišča.
Figure 5: The different characters of Garden Village Bled glamping resort.

oils or left to age naturally. Resorts own water borehole provides fresh and pure drinking water, which is heated with biomass and used for the entire resort, the hot tubs and the natural swimming pool. Natural swimming pool design and technical solution follows the certified Biotop GmbH system [Biotop] and was the first semi-public (open for guests of the resort) natural swimming pool in Slovenia. The process of design and construction of the Garden Village Bled represents a holistic working approach, one that intertwined investor, designers, architects, contractors and managers of the resort after the construction. The before mentioned factors that influence the decision on where and how to travel, were taken into consideration. The design focused on creating a complex, sustainable, ecological and recognizable 'tourist product' that would be able to compete in an already saturated world of tourism and would be able to attract visitors from around the world, which was done successfully.

5. Discussion

The slightly negative connotation of glamping in Slovenia [Sajovic, 2014] is contradicted with the recognised characteristics of glamping in this short study. The paper opens new questions on the subject of glamping, such as the diversity of glampers and lack of thorough research and it reveals some truly interesting projects in tourism from around the world. Selected glamping resorts from Australia (The Longitude 131° resort), Africa (Nomad Tanzania), Canada (The Clayoquot Wilderness Resort) and Slovenia (The Garden Village Bled resort) show that glamping offers a way of creating ecological, educational and cultural tourism destinations that go beyond merely 'luxury' and that they can successfully provide a platform for innovative and sustainable regional and local development. Certain factors and characteristics of successful glamping projects were recognised through working on real life projects (in our case - Garden Village Bled and Ljubno Herbal glamping resort for Charming Slovenia brand) and from researched foreign examples of good practice. The relationship between the

local community, the natural and/or cultural heritage of the region, strong ecology and sustainability character and program, privacy and unique products and services could present a base for an in-depth study of this new niche in tourism, which is gaining more and more recognition in Slovenia as well.

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PRISTNI OKUSI, TRAJNOSTNI TURIZEM V LJUBLJANI

SLOVENIAN AUTHENTIC TASTES, SUSTAINABLE TOURISM IN LJUBLJANA

Ključne besede

trajnostni turizem; kulturna dediščina; družbena inovacija

Key words

sustainable tourism; cultural heritage; social innovation

Izvleček

Pri študiji projekta Raziskovanje procesa managementa: Potencial trženja trajnostnega turizma v Ljubljani smo sodelovali študenti iz treh različnih fakultet. Stik različnih disciplin, bodočih ekonomistov, arhitektov in študentke tekstilstva je pripeljal do novih inovacij. Skozi različne delavnice, predavanja, literaturo, fokusne skupine, anketiranja uporabnikov mesta Ljubljane in okrogle mize, smo raziskovali trajnostni turizem, trženje, management in trenutno turistično ponudbo glavnega mesta Slovenije. Na podlagi raziskovanja je nastal tudi poslovni model Pristni okusi Slovenije, ki vsebuje lesen pribor zavit v lanen prtček. Na prtčku je zapisan tudi recept ene izmed tradicionalnih slovenskih jedi in podatek iz katere regije jed prihaja. Ob tem obiskovalca povabi tudi na ogled regije, ki je podprt s spletno stranjo za turiste.

Abstract

Three different faculties collaborated with researching the management process: The potentials of sustainable tourism in Ljubljana. The combining of the different disciplines of future economists, architects and students of textiles led to new innovations. Through the various workshops, lectures, literature, focus groups and surveys involving the residents and visitors of Ljubljana, it became clear what sustainable tourism, marketing, management and the current tourism offer is in Ljubljana. The research led us to our new business model Slovenian Authentic Tastes. This model offers wooden cutlery which is wrapped in flax cloth. On this cloth is written one of the Slovenian Authentic Dishes and information about the region from which this dish originates. It invites tourists to visit other tourist destinations in Slovenia.

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1. Uvod

Pri študiji projekta Raziskovanje procesa managementa: Potencial trženja trajnostnega turizma v Ljubljani smo sodelovali študenti iz treh različnih fakultet. Stik različnih disciplin, bodočih ekonomistov, arhitektov in študentke tekstilstva je pripeljal do novih inovacij. Pri iskanju poslovnih modelov trajnostnega turizma so nam pomagali pedagoški mentorji doc. dr. Judita Peterlin, prof. dr. Vlado Dimovski, doc. dr. Domen Zupančič, izr. prof. dr. Alenke Pavko Čuden ter delovna mentorica, direktorica Alenka Repič, iz podjetja Kaaita, d.o.o. Teoretični del je zavzemalo raziskovanje in analizo trženja, proces managementa in širjenje funkcije managementa, analizo trajnostnega turizma in okoljevarstvene vzgoje. Povzeli smo tudi analizo zgodovine Ljubljane in izdelali benchmarking izbranih domačih in tujih mest. Dobre trajnostne modele turizma smo primerjali s ponudbo v Ljubljani in nato iskali nove poslovne možnosti za prebivalce in obiskovalce mesta. Na podlagi vseh spoznanj pa smo na koncu izoblikovali tri poslovne modele. Poslovni model Pristni okusi Slovenije pa je predstavljen v tem članku.

2. Cilji

Tema naših raziskav je bila trajnostni turizem Ljubljane. Glavno mesto Slovenije postaja vse bolj priljubljena turistična destinacija, zato moramo uporabniki trajnostno pristopiti k razvijanju novih poslovnih modelov v mestu. Trajnosten turizem je turizem, ki upošteva sedanje in bodoče ekonomske, socialne in ekološke vplive in tudi zadovoljuje potrebe obiskovalcev, gospodarstva, okolja in lokalnih prebivalcev [Mihalič, 2006]. Za trajnostni turizem je pomembno, da se oklepamo štirih stebrov trajnostnega turizma: gospodarski, okoljski, družbeno-kulturni in podnebni. Zagotoviti moramo konkurenčnost ter konstantni razvoj turističnih destinacij in podjetij, da se bodo lahko dolgoročno razvijala. Zavarovati moramo naravo, rastline in živali, pa tudi zmanjšati vse vrste onesnaženosti, ki jih povzročajo turistična podjetja in obiskovalci. Pri lokalnih prebivalcih moramo krepiti kulturno in zgodovinsko dediščino, ohranjati in izboljševati

1. Introduction

Three different faculties collaborated with researching the management process: The potentials of sustainable tourism in Ljubljana. The combining of the different disciplines of future economists, architects and students of textiles led to new innovations. Throughout the research of sustainable tourism, our work was mentored by, Dr. Judita Peterlin, Professor Dr. Vlado Dimovski, Dr. Domen Zupančič, Professor of Engineering Dr. Alenke Pavko Čuden, and working mentor, Director Alenka Repič from the company Kaaita Limited. The theoretical work contains the research and analyses of marketing, management process, the broadening function of management, sustainable tourism analysis and environmental education. A history analysis of Ljubljana was concluded and benchmarking of Slovenian and foreign cities was made. We compared prospective sustainable tourism models with the offer in Ljubljana and then commenced searching for new business opportunities for the citizens of and visitors to Ljubljana. Building on these experiences and from lessons learned, three business models were created. One of these models, entitled Slovenian Authentic Tastes, is presented in this article.

2. Goals

The theme of our research was the sustainable tourism of Ljubljana. The capital of Slovenia is becoming a popular tourist destination, hence the need to develop new business

Slika 1: Novembra 2015 je mestna občina Ljubljana ob poti PST posadila Javni sadovnjak Mestne občine Ljubljana (Zasadili so znane avtohtone vrste sadja in tudi tiste, ki jih v Slovenci slabše poznamo). Sandra Stare.

Figure 1: In November 2015, a public orchard was established in Ljubljana which is located near to the Trail of Remembrance and Comradeship (It includes both well-known, authentic and lesser known varieties). Sandra Stare.



pa moramo tudi kakovost življenja lokalnih skupnosti. Turizem se mora prilagajati tudi podnebnim spremembam in vpliv turizma na podnebje mora biti čim manjši.

Končni produkti našega raziskovanja so družbene inovacije. Gre za rešitve, ki imajo poleg udejanjenja, namen reševati tudi družbene probleme, kot na primer reševanje problema zaposlovanja mladih, samooskrb s prehrano, zaposlovanje oseb, ki so težje zaposljivi (invalidi, slepi in slabovidni, gluhi in naglušni) ipd.

S poslovnim modelom Pristni okusi Slovenije, povezujemo oblikovalce lesa, pridelovalce lanu in šivilje. Rokodelci so tisti, ki ohranjajo tradicionalne veščine. To pa krepi zavest in dviga samopodobo pri lokalnem prebivalstvu, kar je dobra podlaga za razvijanje novih potencialov tako v gospodarstvu, kot v turizmu.

Rokodelci in obrtniki, ki negujejo tradicionalna znanja so danes velikokrat zapostavljeni in neprepoznavni. Njihovo znanje se je prenašalo in ohranjalo skozi rodove, zato je zelo pomembno, da se v dobi industrializacije to znanje ne izgubi. Z našim poslovnim modelom skrbimo, da rokodelska znanja obudimo v tem modernem času zato, da te obrti ne bodo izumrle. Pomembno je, da širša javnost pride v stik z rokodelskimi predmeti vsakodnevno in ne le na raznih lokalnih sejmih. Rokodelcem je potrebno pokazati, da je njihovo delo cenjeno in da se tudi javnost zaveda, kako pomemben je ta segment dediščine.

Največji poudarek našega projekta je torej na predstavitvi slovenske kulturne dediščine. Gre za spodbujanje rokodelstva in uporabe slovenskih naravnih materialov, kot sta les in lan, ter predstavitev slovenske kulinarike. Raznolikost slovenske kulinarike glede na regije pa naznanja tudi turistične raznolikosti naše pokrajine.

Trženje dediščine je vedno bolj pomembno, saj lahko izboljša življenjsko raven podeželskega prebivalstva. Pri tem pa moramo paziti, da ne spremeni ali uniči lokalno kulturo oziroma obstoječi način življenja [Koščak, 2006].

3. Metode

Zelo pomembno je, da smo se sodelujoči pri tem projektu dobro spoznali in na različnih delavnicah skupaj snovali nove ideje. Pri razmišljanju so nam pomagale tudi različne vaje iz ustvarjalnega razmišljanja. »Ustvarjalno mišljenje ni stvar nadarjenosti, temveč je veščina, ki se je je mogoče naučiti. Ljudem podeli moč, saj okrepi njihove naravne sposobnosti, izboljša skupinsko delo, produktivnost in dobiček.« [Keong, 2008: 57]. Znanje je potrebno nabirati z različnih področij in pri tem uporabljati vseh pet čutov. Naše raziskovanje in delovne naloge smo nadgradili z ogledom Hiše eksperimentov, arhitekturnim ogledom Ljubljane pod vodstvom doc. dr. Domna Zupančiča, obiskom Hostla Celica ter vodenim ogledom Ljubljane, pod vodstvom turističnega vodiča g. Urbana Logarja iz TIC Ljubljana. Sama sem se v času raziskovanja odpravila tudi na Tajsko in v Kambodžo, kar je bil pomemben faktor pri razvoju naše ideje, saj sem spoznala kakšne prednosti imamo Slovenci in jih ne tržimo dovolj. V azijskih državah se prebivalci še vedno ukvarjajo z rokodelstvom in dajejo poudarke na tradicionalnih značilnostih. To trenutne turiste najbolj privlači. Na žalost pa se tudi tamkajšnji državi vedno bolj komercializirata v tem pogledu, da nekritično povzemata t.i. zahodni način življenja.

Študentje smo aktivno spremljali dogajanje na področju managementa trajnostnega turizma in se udeleževali tudi predavanj strokovne javnosti. Dane Podmenik in Jana Apih sta na predavanju z naslovom Trajnostni turizem kot poslovna priložnost, predavala o svojih soočanjih na področju trajnostnega turizma v Sloveniji. Tam smo spoznali nekaj odličnih praks trajnostnega turizma, ki so trenutno na voljo v Slovenski Istri.

Ključni del našega raziskovanja je bila raziskava trenutne turistične ponudbe v Ljubljani in anketiranje prebivalcev ter obiskovalcev mesta. Z anketami smo dobili podatke o potrebah in željah uporabnikov, katere smo vključili v snovanje končnih poslovnih modelov.

Pri projektu smo izvedli tudi fokusno skupino oz. skupinski

intervju z namenom, da spoznamo strokovnjake s področja, ki ga raziskujemo in ugotovitve v praksi uporabimo.

4. Opis dela

Poslovni model Pristni okusi Slovenije smo zasnovali na podlagi anketnih vprašalnikov družbene inovacije in ugotovili, da v Sloveniji slabo poznamo svojo tradicionalno hrano in da si jo želimo bolj spoznati. Na terenu smo odkrili lokalnega izdelovalca lesenega pribora, gospoda Mitjo Praznika. Mitja Praznik je predan ohranjanju pristnih okusov hrane in izdeluje lesen jedilni pribor. Na osnovi te vzpodbude iz prakse se je naša skupina odločila, da bo naš trajnostni model kulinarične narave s poudarkom rabe lesa. Slovenija spada med najbolj gozdnate države v Evropi. Gozdnatost je 58,4 % - 1.184.526 hektarjev gozdov pokriva več kot polovico površine države [Zavod za gozdove Slovenije, 2015]. Les je naraven material in prijeten na otip. Leseni produkti skladiščijo ogljikov dioksid in s tem pripomorejo k čistejšemu zraku. Ogljikov dioksid se sprosti nazaj v zrak, če lesene produkte sežgemo, zato je bolj primerno, da lesa ne uporabljamo kot gorivo, pač pa s produkti omogočimo njegovo hrambo. Kadar izdelamo lesen produkt, namesto kovinskega, porabimo za njegovo izdelavo veliko manj energije, kar spodbuja trajnostni razvoj.

Opravili smo intervju z Mitjem Praznikom, ki je izpostavil ugotovitev, da običajni kovinski pribor daje hrani kovinski priokus. Njegov lesen pribor je ročno stružen in zato zelo prijeten tudi pri uporabi v ustih. Hrani okusa ne spremeni, zato ostane okus prav tako pristen, kot če bi jedli z rokami. Uporaba lesenega pribora je del kulturne dediščine, saj so z njim jedli že v preteklosti. Lesen pribor je zaščiten (oljen) s konopljinim oljem. Po navedbah Praznika (intervju) je oljen pribor odporen celo do 130°C. Taka obdelava lesa naj bi omogoča pranje pribora v pomivalnem stroju. Konopljinu olje se na priboru suši več mesecev in v tem času zapre vse pore lesa, s tem pa zmanjša možnost razmnoževanja raznih mikroorganizmov.

V starem mestnem jedru Ljubljane je nekaj restavracij, ki poleg splošne

models based on a sustainable approach. Sustainable tourism is tourism which takes into account current and future economic, social and ecological impacts and also satisfies the needs of users, the economy, the environment and local habitants [Mihalič, 2006]. For sustainable tourism it is important that we hold fast to four pillars of sustainable tourism: economic, environmental, socio-cultural and climatic. It is necessary to focus on the competitiveness and constant development of tourist destinations and companies, thus enabling them to develop in the long-term. It is essential to protect nature, plants and animals. Reducing pollution caused by tourist companies and visitors is also important. We need to encourage cultural and historical heritage among the local population and also maintain and improve their quality of life. Tourism has to adapt to climate changes and its influence on climate must be minimal.

The end products of our research are social innovations. These are solutions which also include social problems, for example, youth employment problems, food subsistence, employment of disabled people.

In our business model, Slovenian Authentic Tastes, we unite wood modellers, flax cloth producers and seamstresses. It would appear that handicraftsmen and women are the only ones who truly care about traditional knowledge which is nowadays mostly sketchy and unknown. Their knowledge has been handed down from generation to generation, which is why it is important not to lose it in these times of industrialization. With our business model, we incorporate the works of handicraftsmen and re-awaken them in these modern times in order to sustain their work. It is important that the handicraft products are accessible to the public daily and not only at local fairs. It is vital to show to handicraftsmen that their work is appreciated and that the public needs to be aware of how important this segment of heritage is.

The main emphasis of our project is on the presentation of the Slovenian cultural heritage. It contains handicraft stimulation, the usage of natural

Slovenian materials such as wood and flax cloth and the presentation of Slovenian cuisine. The diversity of Slovenian cuisine among different regions is shown also in different types of tourist places.

Our trading heritage is increasingly because it can improve the lifestyle of rural populations. However, we have to take care that it does not change or ruin our cultural way of living [Koščak, 2006].

3. Methods

It was vital that all participants became closely acquainted during the different workshops, in order to create new ideas together. Different exercises for creative thinking helped us with deliberations. Creative thinking is not a talent but a skill which everyone can learn. It gives you strength because it builds up your natural aptitudes, improves group work, productivity and profit. [Keong, 2008]. Knowledge has to be gathered from different spheres and using all five senses. We upgraded our research and exercises by visiting the House of Experiments, with architectural sightseeing of Ljubljana, led by Dr. Domen Zupančič, and by visiting Hostel Celica under the tourist guidance of Urban Logar from Ljubljana Tourist Information Center. During the research period, I went to Thailand and Cambodia proving an important factor during the development of our idea. I discovered which advantages Slovenia already has and which have not yet been sufficiently commercialised. In Asian countries, the inhabitants are still craftsmen and they emphasize traditional characteristics, which is highly attractive for tourists. Unfortunately, Asian countries are also becoming increasingly commercial and are applying a western lifestyle. Another attraction in Asia is their local fruit. Visitors are enraptured by it because it is something new for them. Slovenia also has different varieties of fruit which are not well-known, not even to Slovenians. During our investigations, it was discovered that only one public park incorporating fruit trees existed in Ljubljana, and that park had previously been privately owned. On the whole, we are surrounded by decorative trees, however, local

residents mentioned that fruit trees would be a highly welcome addition to the city. We, therefore, developed the idea of planting autochthonous fruit trees such as old varieties of apple, together with cherry, pear and also lesser known varieties such as mulberry, medlar and persimmon.

Sustainable tourism management was monitored and lectures by a professional public were attended. At the lecture of Sustainable Tourism as a Business Opportunity, Dane Podmenik and Jana Apih discussed operating in the field of sustainable tourism in Slovenia. We learned about some good practical work which is ongoing in the Slovenian region of Istra.

A key element of our research was the current tourist offer in Ljubljana and canvassing the local population and visitors. From surveys it became clear what people want and need and this was included in the formation of our business models.

During our research we also made group interviews with the intention of familiarising ourselves with the professionals in this area.

4. Working process

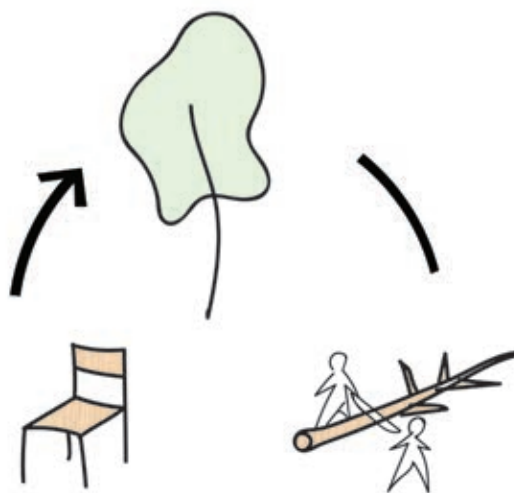
Our business model Slovenian Authentic Tastes was created on the findings of a survey questionnaire and the views of the participants. It was discovered that Slovenians do not know enough about our traditional cuisine and would like to know it better. While terrain researching, we met local handcrafter Mitja Paznik who was making wooden cutlery and who wishes to preserve the authentic taste of food. On the basis of this incentive, it was decided that our sustainable model would have a culinary angle with an emphasis on wood. Slovenia is one of the most forested countries in Europe. The abundance of forest is 58.4%. 1,184,526 hectares of wood covers more than half of our country [Zavod za gozdove Slovenije, 2015]. Wood is a natural material which is pleasing to touch. Wooden materials store carbon dioxide and help to clean the air. Carbon dioxide reverts back to air if we burn wooden products and as such, it is why it is more inappropriate to use wood as fuel and instead make products out of wood and maintain the carbon

kulinarične ponudbe ponujajo še slovensko tradicionalno hrano. V mesecu juniju se je odprla tudi restavracija Slovenska hiša, ki ponuja le Slovenske tradicionalne jedi iz različnih slovenskih regij. Priporočamo, da bi restavracije slovensko tradicionalno hrano stregle z lesenim priborom. Le tako bi lahko gostje okusili pristen okus hrane in to na tradicionalen način.

V Sloveniji je različna hrana tipična za različne regije. »Hrana je osnovna življenjska sestavina, ki jo ljudje potrebujemo za vsakdanje preživetje, a ima hkrati tudi številne simbolne funkcije v kulturah, v katerih je nastala. Skladno s spremenljivimi kulturnimi vzorci v prostoru in času se spreminjajo tudi prehranske navade pripadnikov določene kulture oziroma skupnosti. Kuhinja, tako nacionalna kot regionalna, nastaja v času in se nenehno spreminja ter dopolnjuje. Ravno tako so se pod vplivom drugih oziroma novih kuhinj ter tehnologiji priprave hrane spreminjali sam način priprave jedi in njene sestavine. Svoje temelje oziroma izvir pa kuhinja, zlasti nacionalna, išče predvsem v preteklosti« [Kavrečič, 2014: 37]. Glede na izvedene ankete smo ugotovili, da zanimanje za tradicionalno hrano narašča in jo je potrebno čim bolj promovirati, da načini priprave ne gredo v pozabo. Ko gostu postrežemo neko jed, mu predstavimo tudi od kod izvira in kaj vse si lahko gost v tej pokrajini ogleda. Slovenija je zelo razgibana država, vsaka pokrajina v različnih območjih ponuja drugačne aktivnosti, ki pa so turistom večinoma neznane. Ljubljano je v lanskem letu obiskalo preko milijon turistov in večina ne gre na ogled v noben drug kraj [Ljubljana, 2015]. Tisti, ki pa se odpravijo raziskovat Slovenijo, pa vedo večinoma le za Bled, Bohinj, Postojno, Portorož in Piran. Naša ideja je, predstaviti turistom in tudi prebivalcem Slovenije vse slovenske regije in s tem spodbuditi turiste, da si ogledajo preostale raznolike pokrajine v naši državi s pestro turistično ponudbo. Glavno mesto bo namreč verjetno kmalu preveč oblegano in se bo moralo začeti ukvarjati tudi s tem, kako ljudi preusmeriti na obrobje mesta oz. jim ponuditi tudi druge lepote Slovenije. Na tak način bi promovirali trajnostni turizem po slovenskih regijah. Trajnostno

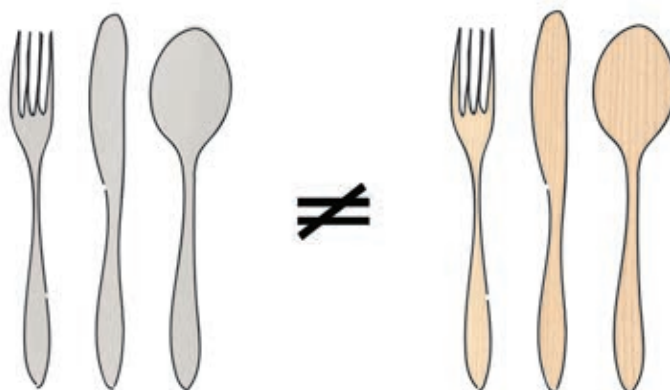
turistično podjetje IstraTerra ponuja različne dogodivščine in zgodbe obiskovalcem, ki so aktivno vključeni v njih in niso le pasivni opazovalci [Istra Terra, 2015]. Taka podjetja in raznolike pokrajine bi torej oglaševali na prtičku, v katerega bi bil zavrt lesen pribor, postrežen gostu v restavraciji s slovensko tradicionalno hrano.

Na prtičku, ki bi ga gost dobil v restavraciji, bi bil torej zapisan recept jedi, ki jo gost naroči in QR koda do internetne strani, preko katere gost izve vse podrobnosti in ponudbo v tisti pokrajini, iz katere prihaja jed. Na spletni strani slovenia.info smo zasledili, da so vse slovenske regije precej dobro opisane in omogočajo poleg angleščine tudi nekatere druge jezike [Slovenia info, 2015]. Pod QR kodo je zapisano tudi ime mobilne aplikacije Visit Ljubljana in Slovenia's Top 100. Za vse ljubitelje uporabe mobilnih telefonov in aplikacij so v



Slika 2: Les je naravni material in skladišči ogljikov dioksid. Vir: Sandra Stare.

Figure 2: Wood is a natural material which stores carbon dioxide. Source: Sandra Stare.



Slika 3: Lesen pribor za bolj pristen okus hrane. Vir: Sandra Stare.

Figure 3: Wooden cutlery for a more real taste of food. Source: Sandra Stare.

dioxide in them. When we make one wooden product instead of a metal product, less energy is needed thus encouraging sustainable growth.

During our survey with Mitja Paznik, he emphasized the point that metal cutlery gives food a metallic taste. His wooden cutlery is turned by hand and pleasant when you use it in the mouth. It does not affect the taste of the food, that is why the taste of the food is authentic, just as it would be from our hands. The use of wooden cutlery is a part of the Slovenian cultural heritage because our ancestors used it. We learned from Mr. Paznik that this wooden cutlery is oiled with hemp oil, which is why it is resistant to temperatures up to 130°C. That kind of treatment of wood enables us to wash the cutlery also in a dishwasher. Hemp oil has to dry on wood for a few months until all the pores in it are closed. This provides fewer opportunities for micro-organisms to multiply in it.

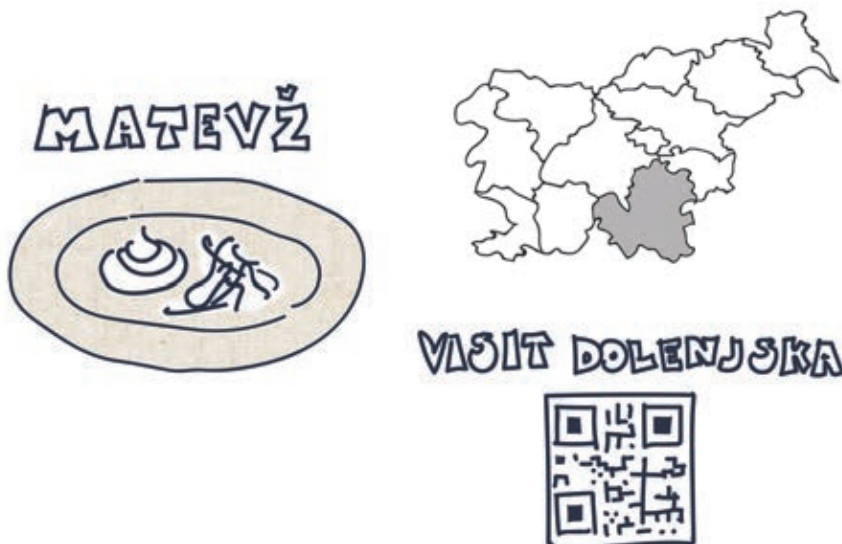
Located in the old part of Ljubljana are some restaurants which, besides a general culinary offer, also provide traditional Slovenian cuisine. In June 2015, a new restaurant opened in Ljubljana, Slovenska Hiša, which offers only traditional Slovenian cuisine from different Slovenian regions.

Slovenia has various traditional food for different regions. "Food is the basic component for people to survive, but it has also many symbolic cultural functions, depending where

it was formed. In accordance with changing cultural patterns in place and time, dietary habits of the members of a particular culture or community are also changing. Cuisine, both national and regional, emerges in time and is constantly changing and updating. Under the influence of other or new cuisines and food preparation technology, the preparing of food and its ingredients has also changed. Its foundations and origins of cuisine, especially national are to be found in the past." [Kavrečič, 2014: 37]. According to a conducted survey, it was discovered that an interest in traditional food needs maximum promotion so that those types of preparation do not disappear into oblivion. When we serve a dish to a guest, it also represents its origin and what a guest can see in this region. Slovenia is a very diverse country, each region with its different areas offer different activities which are mostly unknown to tourists. In the last year a million tourists visited Ljubljana, the majority of which did not travel outside of Ljubljana. [Ljubljana, 2015]. Those who are willing to explore more places in Slovenia mostly visit just Bled, Bohinj, Postojna caves, Portorož and Piran. Our idea is to present to the tourists and citizens of Slovenia all the Slovenian regions, and to encourage tourists to visit the rest of the diverse landscapes of our country with a diverse tourism offer. The capital city will most likely soon become overcrowded by tourists and the problem of how to redirect people to the outskirts and also offer them other beauties of Slovenia should be dealt with now. In that way, they would promote sustainable tourism for Slovenian regions. The sustainable tourism company IstraTerra offers a variety of adventures and stories to visitors who are actively involved in them and are not just passive observers [IstraTerra, 2015]. Such companies and diverse landscapes would be advertised on the napkin, inside which would be wrapped wooden cutlery to accompany the serving of traditional Slovenian food in the restaurants.

On the napkin that a guest uses in a restaurant, the recipe of the dish that the guest ordered would be written, together with a QR code

Slika 4: Za različne slovenske regije je tipična druga tradicionalna hrana. Vir: Sandra Stare.
Figure 4: For different Slovenian regions there are typically different traditional foods. Source: Sandra Stare.



teh dveh aplikacijah prav tako opisani okoliški kraji in njihove znamenitosti.

Tudi sam prtiček bi bil izdelan iz slovenskega lanu, ki je ročno tkan v Adlešičih. Prtiček bi lahko obiskovalec vključno s priborom kupil pri vseh ponudnikih slovenske hrane. Gost bi lahko za spomin kupil tudi le prtiček, ki je uporaben na različne načine, saj uporaba žepkov omogoča, da vanj zataknejo pribor in ga nesemo s seboj na piknik. Uporabimo ga lahko tudi za svinčnike in tako dobimo puščico iz slovenskega lanu. Lahko pa je torbica za ličila ali slikarske čopiče. Funkcionalnost je prepuščena domišljiji posameznika. Prtiček bi bil trajnosten, saj je namenjen večkratni uporabi in vključuje slovenske proizvajalce lanu in tkalce. Dandanes si turisti ne želijo kupovati le lovilev prahu, pač pa uporabne predmete, ki imajo neko zgodbo in zares spominjajo na deželo, v kateri so preživeli lep dopust.

Vsi gurmani, ki si želijo pristno okusiti tudi hrano, ki jo vsakodnevno pripravijo doma, pa si bodo zagotovo poleg prtička za spomin kupili tudi lesen pribor iz slovenskega lesa, ki ga stružijo slovenski obrtniki. Ta lesen pribor namreč hrani ne daje kovinskega priokusa, zato jo lahko okusimo v njeni polnosti.

Naš poslovni model torej povezuje slovenske obrtnike, restavracije s slovensko tradicionalno hrano in promovira različne slovenske regije. Moto izdelka je namreč pristno, slovensko in naravno. Izdelek se lahko trži tudi v turistično informacijskih centrih, na turističnih kmetijah, kjer bi v sklopu šolskih izletov tudi otroci prišli v stik z lesnim priborom in lanenim prtičkom, na različnih gradovih in dvorcih s hrano, ter v trgovinah s slovenskimi unikatnimi izdelki.

5. Razprava

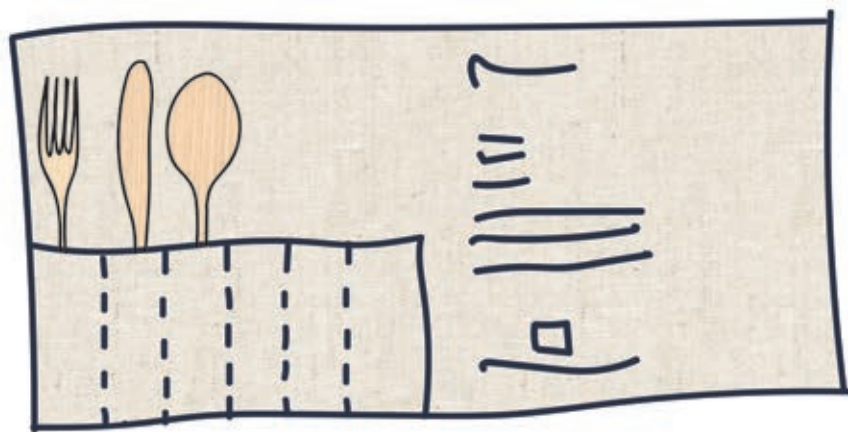
Poslovni modeli so bili gostom predstavljeni na odprti okrogli mizi, kjer smo jih ovrednotili in razmišljali, kako bi lahko nadaljevali, da bi prišlo do dejanske uresničitve poslovnih modelov. Partnerji Poslovnega modela Pristni okusi Slovenije, bi bili poleg obrtnikov (gozdarjev, mizarjev, tkalcev lanu, šivilj), tudi restavracije s tradicionalno Slovensko hrano, turistični centri in turistične kmetije. Restavracije bi kupile prtiček in

pribor, ker bi želele, da njihovi gostje okusijo pristen okus njihove hrane in jih s prtičkom povabijo na ogled različnih regij. Izdelek bi lahko kupili tudi turisti v spomin na Slovenijo. Pribor in prtiček bi bilo mogoče kupiti tudi ločeno.

Projekt ima tudi ekonomske učinke, saj bi zaradi vabila k ogledu različnih regij po Sloveniji gosti v naši državi ostali dlje časa, saj bi preko spletnih strani spoznali tudi destinacije, ki turistom niso najbolj poznane. Poslovni model spodbuja tudi ponos na slovensko tradicijo in izkoriščenost naravnih materialov, ki jih imamo.

6. Sklep

Danes je zelo pomembno mreženje in sodelovanje. Tako nastajajo novi poslovni modeli, ki več različnim skupinam ljudi omogočajo delo. S projektom prispevamo k živahnejšemu lokalnemu gospodarstvu, saj imajo mizarji in tkalci lanu nov projekt. S promocijo izletov v druge regije, pa spodbujamo turizem tudi izven glavnega mesta. S tem postane Ljubljana tudi turistično manj obremenjena. V restavracijah bi posledično povečali ponudbo slovenske tradicionalne hrane, po kateri so spraševali tudi naši anketiranci družbene inovacije. Naš izdelek je namenjen dolgoročni in večkratni uporabi in je prijazen do okolja, saj je izdelan iz naravnih materialov.



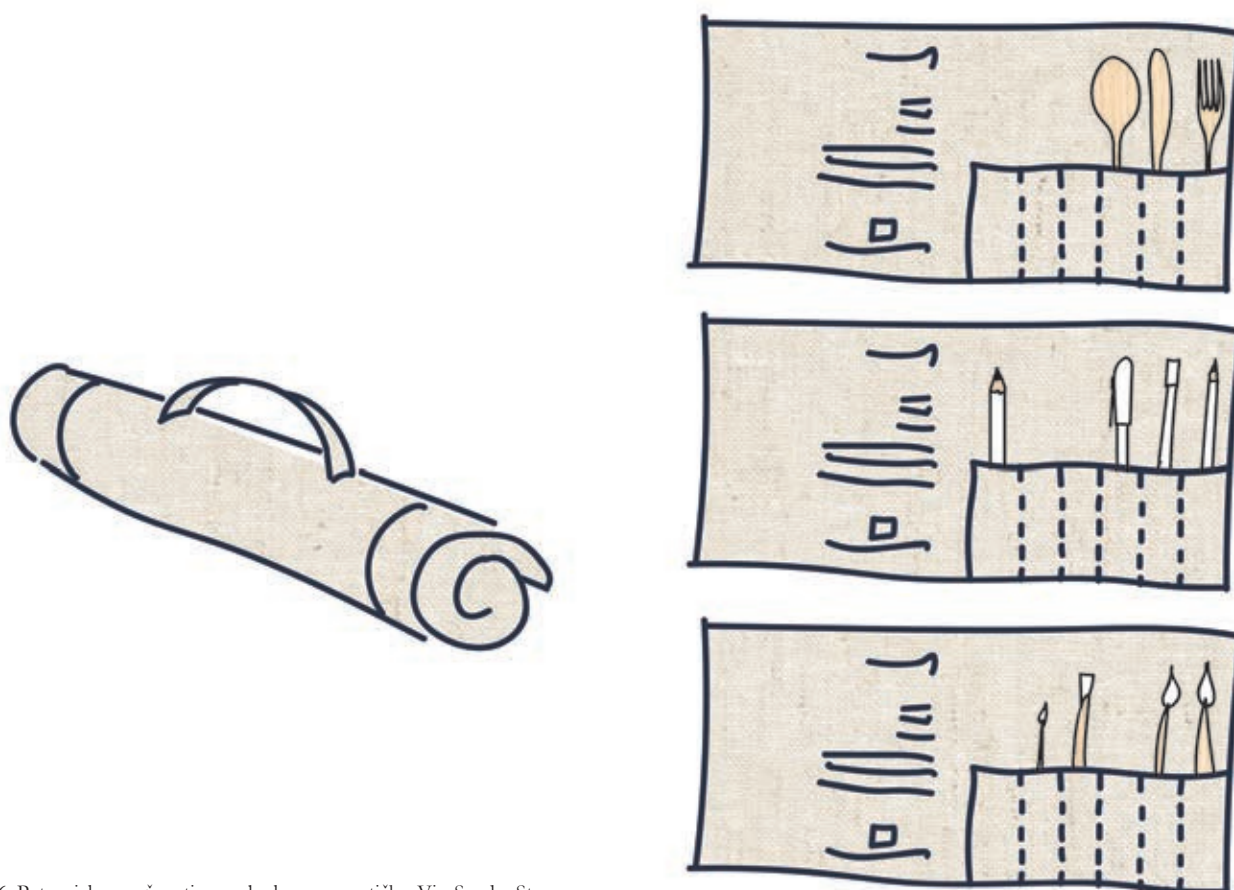
Slika 5: Lanen prtiček z lesnim priborom. Vir Sandra Stare
Figure 5: Flax napkin with wooden cutlery. Source: Sandra Stare.

to the website through which the guest finds out all the details and offers in that province from which the dish originates. On the website slovenia.info we ascertained that all Slovenian regions are quite well described and there is the possibility of not only English language, but other languages too. [Slovenia info, 2015]. Under the QR code the name of the mobile app Visit Ljubljana and Slovenia's Top 100 is also written. For all fans of mobile phones and applications, the surrounding area and its attractions are also described in these two applications.

Even the napkin itself would be made of Slovenian flax, which is hand woven in Adlešiči. The napkin and wooden cutlery would be available for sale to diners at all restaurants offering traditional Slovenian food. Guests could also buy a beautiful souvenir napkin, which is useful in various ways since the use of pockets allows the carrying of accessories and can be taken with you on a picnic. The napkin can also be used for pencils and so we get an arrow from Slovenian flax. Alternatively, it

can be used as a pouch for makeup or paintbrushes. Functionality is left to the imagination of the individual. The napkin would be sustainable, as it is designed for repeated use and involves Slovenian producers of flax and weavers. Nowadays tourists do not want to buy only "dust catchers", but useful objects that have a story and are truly reminiscent of the country in which they enjoyed a nice holiday.

All gourmets who wish to recreate the authentic taste of the food at home will surely buy a napkin as a souvenir, complete with wooden cutlery from Slovenian wood made by Slovenian craftsmen. This wooden cutlery does not give a metallic taste to food, so food can be tasted in all its fullness. Our business model, therefore, links Slovenian craftsmen with restaurants offering traditional Slovenian food and promotes various Slovenian regions. The motto of the product is genuine, Slovenian and natural. The product may be marketed in tourist information centers, tourist farms where, as part of a school trip, children would come into contact with wooden cutlery and flax napkins.



Slika 6: Potencialne možnosti uporabe lanenega prtička. Vir: Sandra Stare.
Figure 6: Potential possibilities of using a flax napkin. Source: Sandra Stare.

It could be purchased in castles and manor houses and shops with unique Slovenian products.

5. Discussion

The business models were presented to guests at an open round table, where they were evaluated and assessed on how to continue to actually realize the business models. Partners of the business model Genuine Flavors of Slovenia would be, in addition to craftsmen (foresters, carpenters, weavers of flax, seamstresses) also restaurants with traditional Slovenian cuisine, tourist centers and tourist farms. Restaurants would purchase the napkins and cutlery because they would like their guests to taste the genuine flavor of their food and invite them to visit other regions. The product could be purchased by tourists in memory of Slovenia. The cutlery and napkins could be purchased separately.

The project also has economic consequences as a result of an invitation to visit different regions across Slovenia, thus encouraging the guests in our country to remain longer, as they would get to know the places through websites which most tourists are not currently aware of.

6. Conclusion

Networking and collaboration is very important today. New business models are made in such a way that different groups of people can have work. With this project we contribute to a more vibrant local economy, because joiners and weavers of flax have a new project. By promoting trips to other regions we encourage tourism outside the capital city. This means that Ljubljana becomes less burdened by tourists. The restaurants would consequently increase their offer of traditional Slovenian food, which is exactly what was requested by our social innovation respondents. Our product is intended for long-term and repeated use and is also environment friendly because it is made from natural materials.

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ZMAJČKOVA POT KOT ARHITEKTURNO-EKONOMSKI MODEL TRAJNOSTNEGA TURIZMA LJUBLJANE

THE DRAGON'S ROAD AS ARCHITECTURAL-ECONOMIC MODEL OF SUSTAINABLE TOURISM IN LJUBLJANA

Ključne besede

zmaj; trajnostni razvoj; turizem;
trajnostni turizem; Ljubljana

Key words

dragon; sustainable development;
tourism; sustainable tourism; Ljubljana

Izvleček

Turizem igra eno ključnih vlog v ekonomiji Slovenije, kar mu daje možnost, da prispeva tudi k ohranitvi in varovanju okolja ter k socialno-ekonomskemu razvoju. V letu 2016 bo Ljubljana Zelena prestolnica Evrope, kar nazorno prikazuje vpletenost elementa trajnosti v življenje mesta. Skupina študentov Univerze v Ljubljani smo skupaj z našimi pedagoškimi in delovnimi mentorji pet mesecev v letu 2015 namenili spoznavanju procesov managementa oziroma raziskovanju potenciala trženja trajnostnega turizma v Ljubljani. Rezultat raziskovalnega projekta so bili trije poslovni modeli trajnostnega turizma. V sledečem prispevku je podrobneje predstavljen eden od teh modelov, Zmajčkova pot, ki smo ga oblikovali študenta ekonomije in študentka arhitekture. Vključuje obstoječe arhitekturne elemente – zmaje, ki jih lahko najdemo na najrazličnejših "skritih" predelih mesta. Prav tako vključuje lokalno skupnost in doživljajski turizem. Pot je zastavljena v ustvarjalni beležki, ki uporabnike vodi pri iskanju po centru Ljubljane.

Abstract

The tourism industry plays a big economic role in Slovenia and, as so, can make a significant contribution to socio-economic development and protection of the environment. Ljubljana, the capital city of Slovenia, is the 2016 European Green Capital. This fact shows the importance of sustainable development for local people and other people connected to the city. A group of students from the University of Ljubljana, together with pedagogues and a mentor from the business world, made a research on sustainable tourism marketing in Ljubljana. It also included learning about processes in management. Research results were three business models which could be used to promote sustainable tourism in Ljubljana. One of these three models is also The Dragon's road, presented in the following article. The Dragon's road was created by two economics students and one architecture student. It connects existing architecture in Ljubljana – "hidden" Dragons in portals, fences, statues etc. – and tourists with local people. It presents Ljubljana in a new, unique way. The road is presented as a creative notebook which helps tourists to discover the city.

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1. Uvod

Ljubljana, prestolnica Republike Slovenije, postaja vse pomembnejša turistična destinacija, njene bivanjske, kulturne, estetske in trajnostne kvalitete pa vse bolj prepoznavne. V letu 2016 bo Ljubljana Zelena prestolnica Evrope, kar nazorno prikazuje vpletenost elementa trajnosti v življenje mesta. Trajnost postaja vse bolj aktualna in pomembna tudi na področju turizma. Skupina študentov Univerze v Ljubljani smo skupaj z našimi pedagoškimi in delovnimi mentorji pet mesecev v letu 2015 namenili raziskovanju potenciala trženja trajnostnega turizma v Ljubljani. Osredotočili smo se na oblikovanje sodobne turistične doživljajske ponudbe v sodelovanju med lokalnim prebivalstvom mesta Ljubljana ter interdisciplinarno zasedbo zainteresirane strokovne javnosti.

Namen projekta je bil, da v okviru sodobnih ekonomskih izzivov identificiramo potencial oblikovanja turistične ponudbe v obliki storitev, izdelkov ali obojega, ki združujejo lokalne potenciale, resurse in dediščino preko samoorganizacije in aktivacije lokalnega prebivalstva. Rezultat raziskovalnega projekta so bili trije modeli trajnostnega turizma. V sledečem prispevku predstavljam enega teh modelov, Zmajčkov pot, ki smo ga oblikovali študenta ekonomije in študentka arhitekture, pod mentorstvom pedagogov Ekonomske fakultete in Fakultete za arhitekturo.

Članek je zasnovan v dveh delih. Prvi predstavlja teoretične osnove – trajnostni turizem in raziskavo, izvedeno v okviru projekta Raziskovanje procesa managementa: potencial trženja trajnostnega turizma v Ljubljani. Drugi del opisuje Zmajčkov pot kot rezultat projekta.

1.1. Cilji

Projekt je bil zasnovan z namenom/s ciljem, da se natančno razišče potenciale trženja trajnostnega turizma v Ljubljani. Na podlagi raziskave pa nato razviti primerne poslovne modele, ki združujejo že obstoječo infrastrukturo, lokalno skupnost in turizem.

1.2. Metode

Metode, ki smo jih pri delu uporabili, so bile deskriptivne, primerjalne in kvalitativne. Začeli smo s postavitvijo temeljev za terensko delo, to je s študijem literature s področij managementa, trajnostnega turizma, trženja in zgodovine mesta Ljubljana. Sledila je še analiza obstoječih primerov trajnostno naravnanih mest. Nadaljevali smo s terenskim delom, ki smo ga izvedli po metodi družbene inovacije. Delo na terenu smo zaključili z analizo pridobljenih odgovorov ter fokusno skupino. Na podlagi pridobljenih podatkov smo v manjših skupinah pripravili aplikativno poročilo oziroma model namenjen praktični uporabi kot priporočilo.

2. Teoretične osnove

2.1. Trajnostni turizem

2.1.1. Turizem in trajnostni razvoj

Turizem lahko opredelimo kot aktivnost oseb, ki potujejo in bivajo v krajih izven njihovega običajnega okolja, skupaj manj kot eno leto zapored, v prostem času, poslovno ali iz drugih razlogov [Cooper et al., 2008]. Turizem igra eno ključnih vlog v ekonomiji marsikateri države, kar mu daje možnost, da prispeva tudi k ohranitvi in varovanju okolja ter k socialno-ekonomskemu razvoju. Turistična aktivnost po eni strani okolje onesnažuje in pridelava velike količine odpadkov, sočasno pa temelji na naravnih danostih, kot so reke, plaže, gore in biodiverziteta, ki omogoča turistični obstoj in rast. Izhajajoč iz teh razlogov lahko sklenemo, da je okolju prijazno trajnostno poslovanje na področju turizma nepogrešljivo [Font & Buckley, 2001].

Splošno lahko trajnostni razvoj definiramo kot razvoj, ki zadovoljuje potrebe današnjih generacij in hkrati ne ogroža možnosti bodočim generacijam, da zadovoljijo svoje potrebe [Cörvers & Glasbergen, 1995]. Splošno povedano: turizem, ki omogoča trajnostni razvoj, imenujemo trajnostni turizem.

Mihalič [2006] pravi: "Trajnostni turizem je turizem, ki upošteva sedanje in bodoče ekonomske, socialne in ekološke vplive in tudi zadovoljuje potrebe obiskovalcev, gospodarstva, okolja in lokalnih prebivalcev". Pri opisu in oblikovanju trajnostnega

1. Introduction

Ljubljana, the capital city of the Republic of Slovenia, is becoming more and more an attractive tourist destination which includes its living, cultural, aesthetic and sustainable qualities. The city is the 2016 European Green Capital. This fact shows the importance of sustainable development for local people and other people connected to the city. The importance of sustainability in tourism was the reason why a group of students from the University of Ljubljana, together with pedagogues and a mentor from the business world, made a research on sustainable tourism marketing in Ljubljana. The focus was on the development of a modern touristic experience, which is environmental and (local) people-friendly.

The purpose of the project was to identify potentials to create business models – as a service, as a product, or both – which would connect local potentials, resources and heritage, by self-organising and active local communities. Research results were three business models which could be used for promoting sustainable tourism in Ljubljana. The following article presents one of them – The Dragon's Road. It was created by two economics students and one architecture student with the help of mentors from faculties.

The article is written in two parts. The first part presents theoretical background – sustainable development and the research on marketing sustainable tourism potentials in Ljubljana. The second part presents The Dragon's Road as a result of the project.

1.1. Goals

The target of the project was to research every potential of marketing sustainable tourism in Ljubljana and then develop suitable business models in order to connect existing infrastructure and local communities with tourism.

1.2. Methodology

In order to understand the point of view of the sustainable tourism in general, all students had to study literature about management, marketing, sustainable tourism and

turizma je pomembno upoštevati štiri stebre trajnostnega turizma. To so: gospodarski, ki zagotavlja konkurenčnost ter konstantni razvoj turističnih destinacij in podjetij, da se lahko dolgoročno razvijajo; okoljski, ki varuje naravo, rastline in živali, pa tudi zmanjšuje vse vrste onesnaženosti, ki jih povzročajo turistična podjetja in obiskovalci; družbeno-kulturni, ki vključuje lokalno prebivalstvo v smislu krepitve kulturne in zgodovinske dediščine ter ohranjanja in izboljšuje kakovost življenja lokalnih skupnosti; ter podnebni, katerega cilj je povečati prilagajanje turizma podnebnim spremembam in omiliti vplive turizma na podnebje.

2.1.2. Management trajnostnega turizma

Management po Daftu pomeni doseganje ciljev organizacije na učinkovit in uspešen način, ki vključuje proces planiranja, organiziranja, vodenja in kontroliranja virov, s katerimi ta razpolaga. Pomeni tudi usklajevanje dejavnosti in nalog za doseg ciljev, ki ga opredelimo kot ustvarjalno reševanje problemov [Dimovski et al., 2005].

Proces planiranja običajno vključuje dve ideji. To sta cilj, ki definira željeni bodoči rezultat, in načrt, kako zastavljen cilj doseči. Planiranje se začne z opredelitvijo poslanstva, razloga za obstoj organizacije in postavitvijo strateških ciljev organizacije kot celote. Sledi proces organiziranja, ki ga Daft [Dimovski, V. et al., 2005] opisuje kot razvijanje resursov organizacije, da bi dosegla željene cilje, kar se odraža v delitvi dela, odgovornosti, pristojnosti in usklajevanju različnih nalog znotraj organizacije. Vodenje (obnašanje) kot nadaljnji korak je interdisciplinarno področje, ki proučuje človeške odnose, vodenje in uspešnost v organizacijah. Črpa iz več področij, kot so sociologija, psihologija, kulturna antropologija, ekonomija, etika, svetovanje, industrijsko inženirstvo in management. Managerji, ki organizacijo vodijo, se večinoma ukvarjajo s pristopi povezanimi z delom, kot so zadovoljstvo z delom in pripadnost organizaciji. Zadnji del procesa managementa je kontroliranje. To je "sistematičen proces reguliranja aktivnosti organizacije, da bi bile v skladu s plani, cilji in standardi uspešnosti". Kontrola naj bi se

usmerjala na dogodke pred, med in po procesu [Dimovski et al., 2005].

Vse opisane funkcije – planiranje, organiziranje, vodenje in kontroliranje – se uporablja tudi v managementu s področja turizma. Management trajnostnega turizma pa, kot mlajše področje, smiselno dopolnjuje tudi ustvarjalno reševanje problemov.

2.1.3. Trajnostni turizem v sloveniji

Z managementom trajnostnega turizma se srečujemo tudi v Sloveniji in njeni prestolnici. V letu 2016 bo Ljubljana postala Zelena prestolnica Evrope, kar nakazuje usmerjenost mesta v smer trajnostnega razvoja. Po statističnih podatkih je prestolnica v letu 2013 zabeležila 503.295 prihodov in 948.771 prenočitev. V primerjavi s celotno Slovenijo je delež obiska turistov Ljubljane znašal 9,90 %, indeks rasti prenočitev turistov glede na leto prej pa 110,7 (Indeks 13/12) [Slovenia info, 2015].

Tudi na ravni države se vse bolj usmerjamo v trajnostni turizem. Že slogan "I feel SLOVEnia" v zeleni in beli barvi simbolizira ravnotežje med umirjenostjo narave in prizadevnostjo Slovencev. Berginc et al. [2015] v svojem prispevku povzemajo Ruzzierjevo [2011], ki pravi, da se identiteta znamke I feel SLOVEnia v vseh svojih šestih elementih (poslanstvu, viziji, razlikovalnih prednostih, koristih, vrednotah in osebnosti) v veliki meri navezuje na našo naravo. Identitetni elementi znamke so: poslanstvo (naprej z naravo), vizija (organski razvoj, nišnost, tehnološka naprednost), vrednote (družina, navezanost na lokalno okolje, zdravje, odgovornost), koristi (spodbuja željo prispevati, spodbuja aktivnost, dostopnost, kakovost življenja, stik z naravo), osebnost (prizadevni v stvareh, ki jih radi počnemo, aktivni, delavni, individualisti, imamo željo po uveljavitvi, smo radi pohvaljeni), razlikovalne prednosti (ohranjena narava, križišče Alp, mediterana in Panonske nižine, bližina razlik, varnost, slovenščina in narečja). Vseh teh šest elementov se pozneje kaže kot obljube na treh ravneh: slovenska zelena, prijetna vznemirjenost in elementarnost. Najpomembnejša zamisel o identiteti pa se nazadnje izraža v obeh vizualnih elementih – sloganu in logotipu, ki je grafično nadgrajen v odtenu slovenske zelene.

2.2. Raziskava razvoja potenciala trženja trajnostnega turizma v ljubljani

2.2.1. Splošno o raziskavi

Z željo spoznati procese managementa in raziskati potenciale trženja trajnostnega turizma v Ljubljani se je oblikovala delovna skupina študentov in njihovih mentorjev s treh ljubljanskih fakultet – Ekonomske fakultete, Fakultete za arhitekturo in Naravoslovnotehniške fakultete – in delovno mentorico iz gospodarstva. Preko raziskave, ki je vsebovala teoretični del, praktični del na terenu in oblikovanje uporabnega modela na osnovi rezultatov terenskega dela, smo želeli oblikovati modele trajnostnega turizma.

Raziskavo smo začeli s študijem literature s področij managementa, trajnostnega turizma, trženja in zgodovine mesta Ljubljana. Sočasno smo se udeležili tudi delavnic in predavanj na temo ustvarjalnega mišljenja in družbene odgovornosti podjetij, ki sta jih pripravili pedagoška mentorica doc. dr. Judita Peterlin in delovna mentorica ga. Alenka Repič, direktorica podjetja Kaaita, d.o.o.

Ko smo imeli dobro teoretično osnovo s področja raziskovanja, smo se lotili terenskega dela, ki je vključeval vprašalnike odprtega tipa po metodi družbene inovacije. Berginc et al. [2015] navajajo družbeno inovacijo po opisu Centra družbene inovacije [The Centre for Social Innovation, 2015] in pravijo, da se nanaša na "nove ideje, ki rešujejo obstoječe družbene, kulturne, ekonomske in okoljske izzive na družbeno in okoljsko odgovoren način. Resnično prava družbena inovacija spreminja obstoječ sistem – trajno spreminja zaznavanje, vedenje in strukture, ki so prej omogočale obstoj teh izzivov".

Ideje smo zbirali tudi preko benchmarkinga tujih in domačih mest oziroma krajev, to so Azorski otoki, Bristol, Cape Whale Coast, Copenhagen, Dubaj, Noordwijk, Oslo, Patiz, San Francisco in Vancouver ter Bovec, Brežice, Kranj, Ljubljana, Maribor, Nova Gorica, Novo mesto, Piran in Postojna. Delo na terenu pa smo sočasno izvajali tudi v obliki obiskov različnih ljubljanskih organizacij, ki si prizadevajo za trajnostni razvoj. Obiskali smo Hišo eksperimentov, Hostel Celica,

history of Ljubljana, and wrote a report about it. We continued with benchmarking against foreign and Slovenian sustainable cities. After that, we started with field methods – firstly, we made questionnaires using a social innovation method and secondly, we visited some local sustainable organizations and organised the focus group. We ended our field research with an analysis. We used the analysis later in order to create sustainable tourism business models.

2. Theoretical Background

2.1. Sustainable Tourism

2.1.1. Tourism and Sustainable Development

Tourism has many different definitions. WTO and UNISTAT in 1994 said that we can think of tourism as “The activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes” [Cooper et al., 2008, p. 11]. The tourism industry also plays a major economic role in many countries. As so it “can make significant contributions to environmental protection as well as socio-economic development” [Font & Buckley, 2011]. Activities in tourism can result in high levels of resource consumption and can lead to adverse environmental impacts (because of pollution and waste). On the other hand, the environment as mountains, beaches, forests, rivers and biodiversity is also a basic resource upon which the tourism industry “depends to thrive and grow”. It therefore makes “good business sense for the tourism industry to operate in an environmentally sound manner” [Font & Buckley, 2011].

Sustainable development is defined as development that satisfies the needs of the present without compromising the ability of future generations to satisfy theirs [Cörvers & Glasbergen, 1995]. Considering this definition, we can say that a tourism that enables sustainable development is sustainable tourism.

Mihelič [2006] defines sustainable tourism as tourism that appreciates present and future economic, social and environmental impacts

and satisfies the needs of guests, economy, environment and local communities. It is also important to include four pillars of sustainable tourism. These are economic, which enables competition and long term development of tourist destinations and companies; environmental, which protects the environment and decreases pollution from tourist companies and tourists; socio-cultural, which includes local community and their habits and culture; and climatic, which tries to reduce touristic impacts on climate change.

2.1.2. Sustainable Tourism Management

Daft definition of management is “the attainment of organizational goals in an effective and efficient manner through the employment of the four management functions of planning, organizing, leading, and controlling organizational resources”. [Dimovski et al., 2005]. Management also means to manage processes and work in order to reach goals, which could be also defined as creative problem solving.

The first of these functions, planning, involves two ideas: a goal which defines what we want to achieve and a plan which defines how the goal will be achieved. Planning starts with company's mission statement, vision, and with defining strategic goals for its organization. The second function, organizing, deals with organizing organization resources to achieve the plan. Leading, the third function of management, is an interdisciplinary field that includes human relationships, leadership and organizational successfulness. The knowledge of sociology, psychology, cultural anthropology, economics, ethics, consulting, industrial engineering and management is also important. The last part of the process is controlling. It is a systematic process of regulation of activities of the organization in order to follow the plan, goals and standards. It is recommended that a manager controls the process before it is started as well as during and after the process [Dimovski et al., 2005].

All of the described functions – planning, organizing, leading and controlling – are used for management in sustainable tourism

too. It is a younger field of tourism, so it should also include creative problem solving.

2.1.3. Sustainable Tourism in Slovenia

Management of sustainable tourism is common also in Slovenia and its capital city. Ljubljana is the 2016 European Green capital. This fact shows the importance of sustainable development for local people and other people connected to the city. In 2013 there were 503,295 arrivals and 948,771 lodgings. In comparison with the touristic visits in Slovenia, there was a 9,90% of all visits in Ljubljana [Slovenia info, 2015].

Sustainable tourism is very important also at the national level. The slogan of the country is “I feel SLOVENIA” in green and white colours. It symbolizes a balance between natural peace and hard working Slovenians. Berginc et al. [2015] summarizes Ruzzier [2011] who said that the identity of the slogan “I feel SLOVENIA” had six elements, all connected to nature. These elements are the mission, vision, values, benefits, personality and benefits because of natural differences.

2.2. The Research on Sustainable Tourism Marketing in Ljubljana

2.2.1. The Research in General

The research on sustainable tourism marketing in Ljubljana was made by students and mentors from three faculties in Ljubljana's University – Faculty of Economics, Faculty of Architecture and Faculty of Natural Sciences and Engineering. There was also a mentor from the business world. The research was made in three parts: firstly we studied literature connected with sustainable tourism, then we conducted field research and we finished by creating sustainable business models.

The first part was a study of literature about management, marketing, sustainable tourism and history of Ljubljana, and writing a report about it. At the same time we also had workshops about creative thinking and social responsibility of companies by doc. Dr. Judita Peterlin and Mrs. Alenka Repič, director of Kaaita company.

si ogledali mesto pod vodstvom dr. Domna Zupančiča, profesorja ljubljanske Fakultete za arhitekturo in pod vodstvom vodiča Turizma Ljubljana.

Izvedli smo tudi fokusno skupino oziroma skupinski intervju z namenom spoznati strokovnjake s področja raziskovanja, ugotovitve v praksi uporabiti in triangulirati na terenu pridobljene podatke družbene inovacije. Od skupno osmih povabljenih so prišli štirje gostje iz prakse – dr. Marinka Vovk, direktorica Centra ponovne uporabe, ga. Minka Kahrič, turistična vodnica, popotnica in prva Slovenka na Severnem polu, g. Borut Markovič, vrhunski športnik, ter ga. Nivea Kofol, umetnica/kiparka.

2.2.2. Rezultati raziskave

Terensko delo smo zaključili z analizo vprašalnikov in fokusne skupine. Splošno so pridobljeni odgovori prikazovali predvsem tematiko doživljajskega turizma, obnove ljubljanske železniške postaje, slovenske kulinarike in športa. Študentje smo posamezno, na podlagi rezultatov vprašalnikov družbene inovacije, fokusne skupine, benchmarkinga, obiskov organizacij in osvojenega teoretičnega znanja, izbrali eno idejo in jo predstavili v skupini. Mentorji so nas nato razdelili v skupine glede na tematiko naših predlogov z nalogo, da oblikujemo poslovni model izbrane ideje. En izmed treh poslovnih modelov, ki so nastali kot rezultat raziskave, je Zmajčkova pot.

3. Zmajčkova pot, arhitekturno-ekonomski model trajnostnega turizma Ljubljane

Poslovni model smo poimenovali Zmajčkova pot. To je posebna pot, prek katere turisti in domačini spoznajo Ljubljano, tako da iščejo "skrite" zmaje. Zmaj je že dolga leta uveljavljen in prepoznaven simbol mesta Ljubljana. Pojavlja se v legendi o nastanku mesta, od baroka dalje pa je tudi vključen v grb Občine Ljubljana. V različnih oblikah se zmaji pojavljajo po celotnem mestu. Najdemo jih kot kip na Zmajskem mostu, upodobljen je na pročeljih stavb, na pokrovi kanalizacijskih jaškov, kot del ograj in še na mnogih drugih kotičkih mesta.

Poslanstvo Zmajeve poti je predvsem ozaveščanje o trajnostnem razvoju in o ljubljanskem zmaju skozi igro, tj. gamifikacija. V prvi vrsti je namenjena družinam z majhnimi otroki. Vrednote, ki jih ustvarjalci Zmajeve poti želimo posredovati uporabnikom, so trajnostni razvoj, sodelovanje in ustvarjalnost. Trajnostni razvoj dosegamo preko spodbujanja gibanja, vključevanja lokalne skupnosti in infrastrukture, izkustvenega učenja in izdelka – eko-beležke, ki je izdelana iz odpadnih/recikliranih materialov. Sodelovanje pomeni, da se družina med izvajanjem poveže, si pomaga in se bolje spozna, hkrati pa sodeluje tudi z lokalno skupnostjo. Ustvarjalnost se kaže pri ustvarjanju beležke, šivanju poti (ki je del beležke) ter pisanju razglednice.

Zmajevo pot smo povzeli v ustvarjalni beležki. Koncept te je platenje. Na vsaki strani so z luknjico označene lokacije posameznih zmaje, ki se po plasteh odkrivajo in oblikujejo Zmajevo pot. Začne se z eno lokacijo, nato se na vsaki strani dodaja po dve novi. Uporabnik si tako sam izbere, katero lokacijo in zmaja bo obiskal in na ta način ustvari svojo pot. Izkušnja posameznika je zato edinstvena. Na zadnji strani so zbrane vse lokacije z namenom, da si vsak sešije prehojeno pot, tako da napelje priloženo vrstico skozi obstoječe luknjice. Kdor želi, lahko sešito stran izreže in jo pošlje kot razglednico.

Slika 1: Skica zmajev na obrežni ograji ob Zlati ladji v Ljubljani. Skica: Stefani Berginc.

Figure 1: Sketch of a dragon at the promenade, along the Ljubljana, Breg Source: Stefani Berginc



We continued with benchmarking against foreign and Slovene sustainable cities and places such as Azores islands, Bristol, Cape Whale Coast, Copenhagen, Dubai, Noordwijk, Oslo, Paris, San Francisco, Vancouver, Bovec, Brežice, Kranj, Ljubljana, Maribor, Nova Gorica, Novo mesto, Piran and Postojna. During benchmarking, we also visited some local organizations connected with sustainable development (as Hostel Celica) and had two guided tours around Ljubljana.

After that, we started with field methods. Firstly, we made questionnaires, using a social innovation method and secondly, we organised the focus group. There were four out of eight invited experts: dr. Marinka Vovk, director of reuse centres in Slovenia; Mrs. Minka Kahrič, world traveller and tourist guide; Mr. Borut Markovič, top athlete; and Mrs. Nivea Kofol, artist. They all shared their views on sustainable tourism so the debate was interesting.

2.2.2. Results of the Research

We ended our field research with an analysis that we used later to create sustainable tourism business models. The most common results were connected with Ljubljana's train station, tourism experience, Slovenian cuisine and sports. Every student prepared one idea for a business model and presented it in

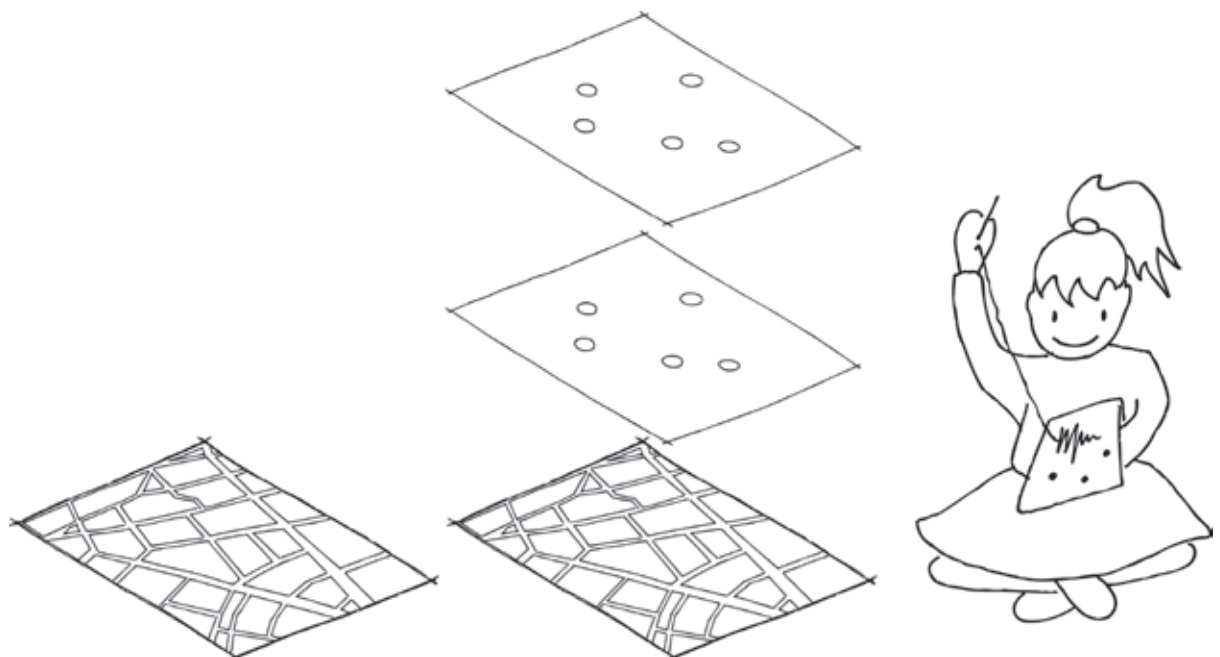
front of mentors and colleagues. Mentors then created three smaller groups of students depending on the field of the presented idea. We developed three business models which could be used in reality – in Ljubljana's sustainable tourism. One of these models was also The Dragon's Road.

3. The Dragon's Road as Architectural-Economics Model of Sustainable Tourism in Ljubljana

Our business model is named "The Dragon's Road". It is a unique road which leads tourists around Ljubljana through a game – they have to find "hidden" dragons. The Dragon is an established and well-known symbol of Ljubljana. It appears in the legend about Ljubljana's origins and it has been in the city's coat of arms from the Baroque. Dragons can be found in different shapes all around the city, as statues, portals, fences etc.

The goal of the Dragon's Road is mainly to make people aware about sustainable development and about Ljubljana's dragon through a game. It is perfect for families with small children. The values that we want to pass on our target audience are sustainable development; by encouraging walking, connecting tourists with local people, using existing infrastructure, creative learning and the product – eco notebook; coworking; as a form

Slika 2: Princip šivanja oz. vezenja poti po lističih z zemljevidi. Skica: Stefani Berginc.
Figure 2: Picture 1: Sketch of layering and stitching notes. Source: Stefani Berginc



POSLOVNI MODEL TRAJNOSTNEGA TURIZMA V LJUBLJANI
<i>Poimenovanje:</i> Zmajčkova pot
<i>Kratek opis:</i> Poslovni model je Zmajčkova pot. To je posebna pot, prek katere turisti in domačini spoznavajo Ljubljano, tako da iščejo skrite zmaje.
<i>Pobudnik:</i> Pobudniki so študentje, ki sodelujejo pri projektu Po kreativni poti do praktičnega znanja: Raziskovanje potenciala trženja trajnostnega turizma v Ljubljani, in mentorji.
<i>Partnerji:</i> Partner projekta je Evropski socialni sklad, ki je omogočil sredstva za raziskovanje in oblikovanje modela. V praksi izvedbo modela podpira Turizem Ljubljana.
<i>Kako se financira/vir prihodkov:</i> Financira se prek nakupa beležke, ki vsebuje »načrt« za raziskovanje Ljubljane.
<i>Prispeva k živahnemu lokalnemu gospodarstvu? Kako?</i> Da. Turiste in domačine povabi, da v (ne)znanem okolju poiščejo zmaje, na ta način pa mesto spoznajo na drugačen način. Spodbuja k obiskom lokalnih ustanov, galerij in muzejev, k osvežitvi na tržnicah, lokalnih restavracijah in kavarnah. Tako je lokalno gospodarstvo povezano preko Zmajčkove poti.
<i>Kakšne ekonomske učinke ima?</i> Igra oziroma raziskovanje Ljubljane z Zmajčkov potjo spodbuja k individualnemu ogledu Ljubljane. Tako spodbuja turiste, da si sami peš ogledajo mesto. Načrtujemo, da bo privabila bolj ozaveščene in avanturistične goste oz. bolj ozaveščene kupce z višjo kupno močjo.
<i>Kakšne so koristi za lokalno skupnost?</i> Lokalno skupnost Zmajčkova pot povezuje oz. združuje. Prav tako nekatere oglašuje. Zmajčkova pot je namenjena tudi lokalnim prebivalcem, saj omogoča raziskovanje mesta, kot ga še niso doživeli.
<i>Kako je vpeta lokalna javnost?</i> Lokalna skupnost je vpeta prek poti, ki vodi mimo različnih ustanov, in opisa na QR kodah.
<i>Kakšne so koristi za turiste?</i> Turisti lahko mesto raziščejo sami. Raziskovanje je zanimivo in poučno. Iskanje zmajev pa tudi poveže skupino, ki v igri sodeluje.
<i>V čem je model inovativen? Izkorišča potencial, ki jih nudi današnji čas (tehnologija, virtualni modeli, mreženje, oblikovanje ponudbe, ki ne temelji na masovnih konceptih)?</i> Da, saj v pot vključuje že obstoječo infrastrukturo, moderno tehnologijo (QR kode) in temelji na individualnem pristopu do uporabnika.
<i>Kakšen ima vpliv na družbo in kulturo?</i> Vrednote, ki jih ustvarjalci Zmajčeve poti želimo posredovati uporabnikom, so trajnostni razvoj, sodelovanje in ustvarjalnost. Pravično in enakovredno obravnava vse udeležence in hkrati spodbuja gibanje, sodelovanje z lokalno skupnostjo in ustvarjalnost pri ustvarjanju beležke.
<i>Kakšen je njegov vpliv na okolje?</i> Beležka je izdelana iz odpadnih materialov. Tako uporabnikom pošiljamo sporočilo o možni ponovni uporabi različnih materialov. Prav tako spodbujamo hojo in uporabo javnih prevoznih sredstev – tako je vpliv na okolje še manjši.

Tabela 1: Zmajčkova pot, poslovni model trajnostnega turizma v Ljubljani. Vir: Berginc et al., 2015.

Tabela 1: Zmajčkova pot, poslovni model trajnostnega turizma v Ljubljani. Vir: Berginc et al., 2015

of team building in the group and interaction with local community; and creativity; by creating a notebook and sewing the road (which is part of the notebook) and writing a postcard.

Dragons are marked in a creative notebook. The concept consists of layers. On every page there are locations of few dragons marked (with small holes) which can be gradually discovered. Together they create The Dragon's Road. On the first page there is only one location, on the second there are two new, on the third page there are also two new, and it continues like this until the last page where all Dragons are marked. Tourists are able to select locations in any order they want, so every group should discover the city differently. On the last page, where all locations are marked, the group is able to sew their road – by using a rope and small holes which mark locations. If they want, there is a possibility of cutting out this page and send it as a postcard.

Pages in the notebook are blank because we want to encourage users' creativity by drawing or writing down their impressions. On every page there is also a QR code which contains additional information about the vicinity of the dragon and invitations for visiting cultural institutions (museums, galleries etc.). There is also a map of the city centre for better orientation. The notebook is made from recycled paper and sewn. We also want to invite people with lower chances of getting a job to help us.

Every user makes its own road. The beginning is the same for everyone but later locations should be different considering that it is a person's choice which location to visit next. Tourists choose a location and then walk there. After arrival they should find one or more "hidden" dragons in the surroundings. When they find it (or them) they write or draw down their impressions and then decide if they want to use QR code for more information. If they decide to visit a museum which is described in the website accessible with the QR code, they could get some ticket discount.

The Dragon's Road is a possibility for tourists to see Ljubljana in a new and unique way – through "hidden"

dragons. It is universal and generic. Universal means that we can expand or shorten it, or even make new roads with different topics. It is generic because there is no text in the notebook so it is understandable in every language [Berginc et al., 2015].

4. Discussion

The analysis of questionnaires, the focus group, our practical experience and the theoretical knowledge gave us information about what is needed in Ljubljana's sustainable tourism. Topics were mainly mobility, the main train station in the city, Slovenian cuisine and products connected with it, and tourism as an experience.

I worked in a group of three students – two economics students and one architecture student. We developed a new tourist attraction in Ljubljana in order to give tourists a unique experience. Because the Ljubljana's Dragon has been a city's symbol since the Baroque, we decided to involve it also in our product.

As The Dragon's Road is guided by a creative notebook, a "living" guide is not needed. The notebook is blank which encourages creativity among users. While walking around the city and searching for dragons, tourists also see other architecture and parts of the city that are usually not in a tourist brochure.

The business model of The Dragon's Road was presented to the public on a panel at Faculty of Economics which was organised by participants of the research. Feedbacks were very encouraging, especially from Ljubljana's Tourist Office. They invited us to realise our idea. That is why maybe The Dragon's Road will become a part of Ljubljana's sustainable tourism offers.

5. Conclusion

The tourism industry plays a major economic role in many countries. As so it "can make significant contributions to environmental protection as well as socio-economic development" [Font & Buckley, 2011]. It should be connected with sustainable development, which is a development that satisfies the needs of the present without compromising the ability of future generations to satisfy theirs [Cörvers & Glasbergen, 1995]. Sustainable tourism is a way

to balance the nature and tourism, and it is becoming more and more popular among tourists and also local communities. The connection between nature and tourism is also visible in Slovenian tourism. Our tourist organisation created a slogan "I feel SLOVEⁿia" which represents the balance in sustainable tourism. The capital city of Ljubljana is also the 2016 European Green Capital.

The importance of sustainability in tourism was the reason why a group of students from the University of Ljubljana, together with pedagogues and a mentor from the business world, made a research on sustainable tourism marketing in Ljubljana. The focus was on the development of a modern touristic experience, which is environmental and (local) people-friendly. One of the three business models resulting from the project, was also The Dragon's Road. It is a unique road which leads tourists around Ljubljana through a game – they have to find "hidden" dragons. The Dragon's Road is a possibility for tourists to see Ljubljana in a new way. All locations are collected in a creative notebook with a map of the city so tourists are free to explore the city through dragons and on their own. The Tourist Office in Ljubljana already showed motivation to help us developing and realize the road. If that happens, it will become a big progress in Ljubljana's sustainable tourism.

Strani beležke so nepopisane, ker želimo tako spodbuditi uporabnike, da zabeležijo svoje vtise ter razvijajo ustvarjalnost. Vsaka stran z lokacijami vsebuje le QR kodo, na kateri so dodatne informacije o okolici zmaya ter namigi za obiske kulturnih ustanov. Na platnici beležke je natisnjen zemljevid ožjega mestnega jedra za boljšo orientacijo. Beležka je izdelana iz odpadnega papirja in sešita. V načrtu imamo, da bi v izdelovanje beležke vključili težje zaposljive ljudi in tako izdelku, zgodbi ter izdelovalcem dodali posebno družbeno odgovorno noto.

Pot si vsak posameznik oblikuje sam s pomočjo beležke. Začetek je za vse enak, v nadaljevanju pa se bodo lokacije razlikovale glede na to, katero od označenih bo sodelujoči izbral. Udeleženci si izberejo lokacijo in se do nje odpravijo peš. Tam poiščejo "skritega" zmaya (lahko jih je tudi več). Ko ga najdejo, v beležko zapišejo svoje vtise, nato pa obrnejo stran in si izberejo novo lokacijo. Kdor želi, lahko s pomočjo QR kode, ki jo najde v beležki, pridobi dodatne informacije, ki opisujejo okoliške znamenitosti in vabijo k nadaljnjemu raziskovanju. Po dogovoru z vključenimi ustanovami, kot so muzeji, galerije in restavracije, se udeležencem, ki se lotijo dodatnega raziskovanja, omogoči popust pri nakupu vstopnice oz. določenih artiklov v ponudbi.

Pot je zastavljena tako, da udeleženci spoznavajo mesto preko iskanja zmajev. Je univerzalna in generična. To pomeni, da se da pot po potrebi razširiti/skrajšati ali pa narediti podobno pot preko druge tematike (npr. hrane). Prav tako je umetniški jezik za vse enak, zato ni potrebno prevajanje v tuje jezike [Berginc et al., 2015].

4. Razprava

Ugotovitve analize vprašalnikov družbene inovacije in zaključki fokusne skupine ter terenskega dela so nam pokazali tri glavne smeri, v katere priporočamo, da se usmeri trajnostni turizem v Ljubljani. To so področje mobilnosti oziroma prenovljena vhodna točka – ljubljanska železniška postaja, kulinarika v smislu tradicionalne slovenske hrane in materiali, iz katerih so izdelani pripomočki (na

primer lesen pribor), ter vključevanje obstoječe arhitekture in lokalne skupnosti v doživljajski turizem glavnega mesta.

Skupina, v kateri sem delovala, se je usmerila v oblikovanje rešitve zadnje točke, to je vključevanje obstoječe arhitekture in lokalne skupnosti v doživljajski turizem. Odločili smo se, da po vzoru poti, ki jih slovenski turizem že ponuja, kot sta vetrovna in jantarjeva pot, oblikujemo tudi pot po Ljubljani. Ker je zmaj eden glavnih simbolov mesta, je kot tak vključen v marsikatero arhitekturne elemente. Naš cilj je bil povezati te zmaje v pot, namenjeno tujim in domačim družinam. Združili smo jih v beležko, izdelano s pomočjo težje zaposljivih oseb iz okolju prijaznih materialov. Beležka z luknjico le nakazuje lokacijo, ki naj jo sodelujoči najdejo. Ko prispejo na cilj, iščejo zmaje. Iskanje zmaja, ki je že del arhitekture mesta (del ograje, portala, kip, znak na kanalizaciji itd.), spodbudi iskalce, da si ogledajo celotno arhitekturo. Na ta način spoznavajo mesto na drugačen način kot običajno – gledajo podrobnosti hiš, mostov, ograj itd., torej mesto kot skupek delcev in celoto.

Zmajčkova pot tako ponuja novo obliko turizma v mestu. Združuje obstoječo arhitekturo, lokalno prebivalstvo in trajnost. Beležka, ki je del poti uporabnike spodbuja k ustvarjalosti in samostojnemu raziskovanju, spodbuja h gibanju, radovednosti, trajnosti in k spoštovanju kulturne in naravne dediščine mesta.

Model Zmajčkove poti kot primer trajnostnega doživljajskega turizma mesta Ljubljana smo predstavili na okrogli mizi na Ekonomski fakulteti Univerze v Ljubljani, ki je bila organizirana v sklopu projekta Po kreativni poti do praktičnega znanja. Doživeli smo pozitiven odziv s strani Turizma Ljubljana ter njihovo vabilo k sodelovanju. Zmajčkova pot bo tako v prihodnosti morda tudi v resnici postala del trajnostnega doživljajskega turizma Ljubljana.

5. Sklep

Turizem je eden ključnih elementov ekonomije v marsikateri državi. Ker naravne vire lahko uničuje in hkrati potrebuje, je sodelovanje med okoljem in turizmom ključno.

Navezuje se na trajnostni razvoj oziroma razvoj, ki zadovoljuje potrebe današnjih generacij in hkrati ne ogroža možnosti bodočim generacijam, da zadovoljijo svoje potrebe [Cörvers & Glasbergen, 1995, str. 22]. Trajnosten razvoj je način, kako doseči ravnotežje in sodelovanje okolja in turizma in se kaže v obliki trajnostnega turizma. Visoka raven sodelovanja med naravo in turizmom je prisoten tudi v Sloveniji, ki je v ta namen oblikovala znamko "I feel SLOVEnia". Prav tako se kaže v prestolnici Ljubljani, ki bo v letu 2016 postala Zelena prestolnica Evrope.

Ker je trajnost na področju turizma ključna smernica prihodnosti, smo se raziskovanja tega področja ter ustvarjanja praktičnih modelov trajnostnega turizma v Ljubljani lotili tudi študentje in mentorji treh ljubljanskih fakultet – Ekonomske fakultete, Fakultete za arhitekturo in Naravoslovnotehniške fakultete.

Eden izmed ustvarjenih modelov je bil tudi model Zmajčkova pot, ki vključuje obstoječe arhitekturne elemente – zmaje, ki jih lahko najdemo na najrazličnejših "skritih" predelih mesta. Prav tako vključuje lokalno skupnost in doživljajski turizem. Preko Zmajčkove poti želimo turiste voditi po Ljubljani na kreativen in zabaven način, hkrati pa jih prek iskanja zmajev seznaniti z arhitekturo mesta. V kolikor se bo model tudi v praksi apliciral verjamemo, da bo pripomogel k bolj trajnostnemu doživljajskemu turizmu slovenske prestolnice.

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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 besedilo 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.

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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.

