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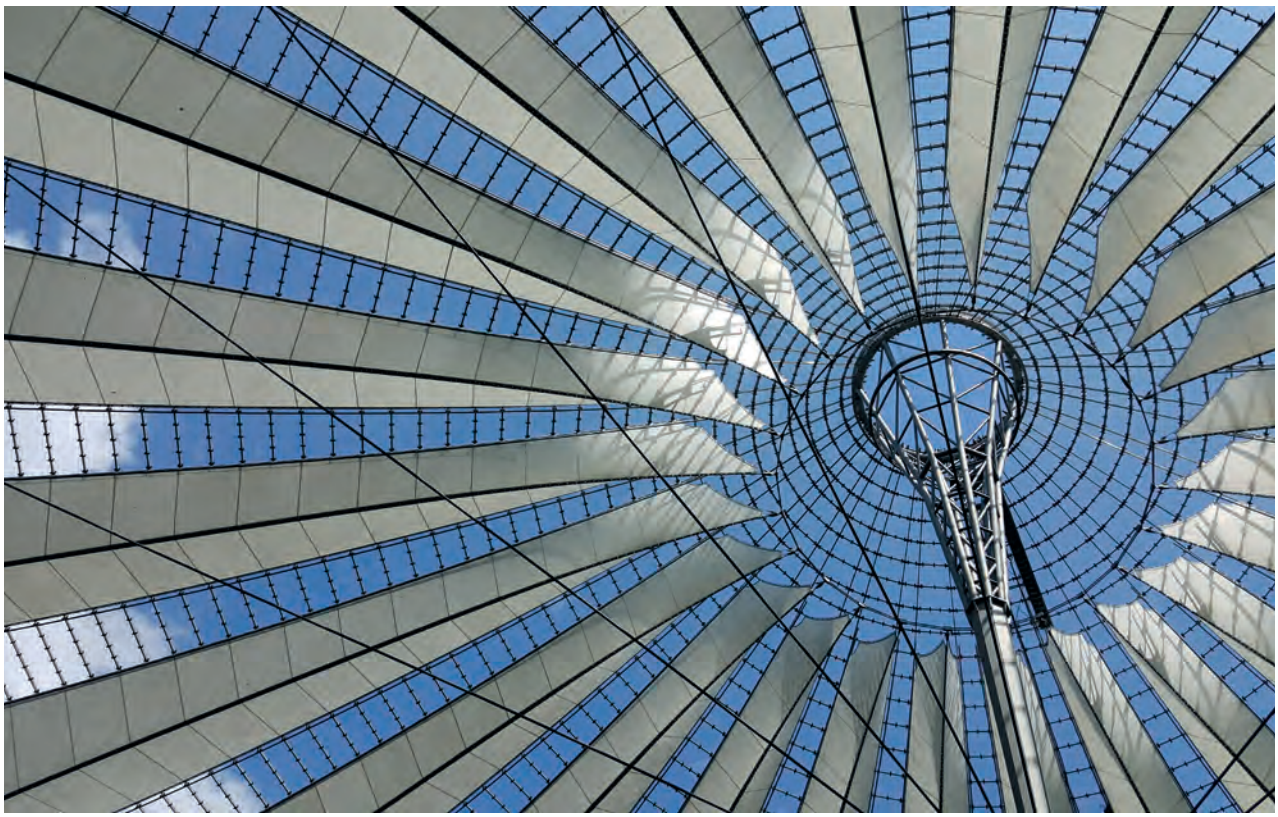

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Naslov uredništva
Urbanistični inštitut Republike Slovenije
Urbani izziv – uredništvo
Trnovski pristan 2, SI-1000 Ljubljana, Slovenija

Telefon: + 386 (0)1 420 13 10
E-naslov: urbani.izziv@uirs.si

Editor's address
Urban Planning Institute of the Republic of Slovenia
Urbani izziv – The Editor
Trnovski pristan 2, SI-1000 Ljubljana, Slovenia

Telephone: +386 (0)1 420 13 10
E-mail: urbani.izziv@uirs.si

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Odgovorni urednik, direktor/Representative, Director
Igor Bizjak

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Damjana Gantar

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Spremembe so stalnica

Podnebne spremembe, demografske spremembe, spremembe zakonodaje ..., skoraj vsak dan slišimo ali beremo o njih in se nam ne zdijo nič novega. So pa še druge, tudi bolj osebne, lahko bi jim rekli življenjske spremembe. Nanje se odzivamo vsak po svoje in odvisno od okoliščin, se jih navadimo ali pa se jim postavimo po robu. Ni pa res, da samo spremembe vplivajo na nas, tudi mi lahko vplivamo na spremembe. Vplivamo kot posamezniki in kot del skupnosti, da bo svet boljši za vse.

Spreminjajoče se podnebje, starajoče se prebivalstvo in stalna urbana rast so vzporedni procesi, ki so spodbudili raziskavo učinka mestnega toplotnega otoka na zdravje ljudi v Rotterdamu. Izsledki te raziskave so predstavljeni v prvem članku tokratne številke *Urbanega izziva*. Sledi članek o nasprotujočih si pristopih francoske urbanistične politike za spodbujanje gradnje socialnih stanovanj, ki temelji na zagotavljanju pravice do stanovanja za vsakogar in doseganju socialne raznolikosti v soseskah. V naslednjem članku je predstavljena primerjava preobrazbe degradiranih območij v Barceloni in Seulu, s poudarkom na družbenih vidikih tega procesa. Četrti članek se osredotoča na vsebino in splošno razumevanje pojmov javno dobro, skupni viri in skupno dobro ter na slovenskem primeru izpostavi pomen ustreznega upravljanja in ohranjanja omejenih naravnih virov. Vsebino revije zaokroža predstavitev knjige o Plečnikovih študentih v Le Corbusierovem ateljeju. V knjigi so opisani njihove življenjske poti in dosežki, ki so jih s širjenjem obzorja prispevali k slovenski moderni arhitekturi in urbanizmu.

Želim vam prijetno branje!

Damjana Gantar,
glavna urednica

Change is a constant

Climate changes, demographic changes, changes in legislation – we hear and read about them almost every day, and we simply take them for granted. But there are also other changes, including those of a more personal nature, which may also be referred to as life changes. Everyone responds to them in his or her own way and, depending on the circumstances, we either get used to them or resist them. True, changes influence us, but we can also influence them – as individuals and as part of the community in order to create a better world for all.

A changing climate, an aging population, and ongoing urban growth are parallel processes that inspired the research on the urban heat island effect on people's health in Rotterdam, presented in the first article of this latest issue of *Urbani izziv*. This is followed by an article on the opposing approaches of the French urban planning policy for promoting the development of social housing, which is based on ensuring the right to housing for everyone and achieving social diversity in neighbourhoods. The third article compares the transformation of deprived urban areas in Barcelona and Seoul, focusing on the social aspects of this process. The fourth article discusses the meaning and general understanding of the terms *public good*, *common-pool resources*, and *the commons*, using the case of Slovenia to highlight the importance of proper governance and preservation of subtractable natural resources. This issue is rounded off by a review of a book on Jože Plečnik's students that worked in Le Corbusier's studio in Paris. The work describes their lives and the achievements they contributed to modern Slovenian architecture and urban planning by broadening their horizons.

I wish you pleasant reading.

Damjana Gantar,
Editor-in-chief

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Frank VAN DER HOEVEN
Alexander WANDL

»Hotterdam«: kartiranje družbenih, morfoloških in prostorskih vidikov rotterdamskega mestnega toplotnega otoka

Klimatologi napovedujejo, da bodo v prihodnjih desetletjih vročinski valovi na Nizozemskem pogostejši. Ob upoštevanju tega dejstva sta avtorja v raziskavi merila mestno toploto in oblikovala model energijske bilance površja v Rotterdamu. Na podlagi geografskega informacijskega sistema (GIS), 3D-modelov in satelitskih posnetkov sta podrobno določila družbene, morfološke in prostorske vidike mesta ter z uporabo hierarhične in multivariatne regresijske analize opredelila povezave med temperaturami in energijsko bilanco površja ter družbenimi, morfološkimi in prostorskimi vidiki. Izsledki raziskave so pokazali povezavo med učinkom mestnega toplotnega otoka in zdravjem ljudi v Rotterdamu, poleg tega sta avtorja statistično pojasnila tudi izjemno visoko umrljivost ljudi, starih 75 let ali več, poleti 2006. Pomembno vlogo pri tem so imeli prostorska zgoščenost starejših prebivalcev, povprečna starost stavb, v katerih so živeli, ter skupni senzibilni in shranjeni toplotni tok. Vidiki, ki najbolje pojasnjujejo rotterdamski toplotni otok, so neprepustnost površja, indeks listne površine, stavbni ovoj, vodne površine in osenčenost. Avtorja sta jih predstavila na dveh t. i. temperaturnih kartah, na podlagi katerih se lahko določijo prednostne naloge pri izvajanju ukrepov prilagajanja podnebnim spremembam.

Ključne besede: mestni toplotni otok, morfologija, raba prostora, starejši, prilagajanje podnebnim spremembam, Rotterdam

1 Uvod

1.1 Okoliščine

Vročinski val v Evropi leta 2003 je bil prvo opozorilo. Vročina je avgusta še zlasti prizadela Francijo, kjer se je v pičlih dveh tednih nacionalni zdravstveni sistem popolnoma porušil, umrlo pa je več kot 14.000 ljudi. Samo v Parizu je zaradi vročine umrlo približno 5.000 ljudi, med katerimi so prevladovali starejši občani. Raziskave mest, kot sta Pariz in London, ki so bile opravljene v naslednjih letih, so pokazale, da mestni toplotni otoki pomembno vplivajo na udobje, aktivnost in zdravje prebivalcev (Mavrogianni idr., 2011). Študija Pariza je dala dragocen vpogled v to, kako lahko javno zdravstvo, družbeni dejavniki, stanovanjske razmere, okoljski dejavniki in mestni toplotni otoki vplivajo na večjo umrljivost v primeru hudega vročinskega vala (Vandentorren idr., 2006). Komisija londonske univerze in medicinske revije Lancet (ang. *UCL-Lancet Commission*) je mestne toplotne otoke označila za enega izmed glavnih izzivov pri oblikovanju zdravju prijaznih mest. V tem okviru je navedla, da so mesta kompleksni sistemi, v katerih imajo ključni pomen morfologija, raba prostora in prostorska lokacija (Rydin idr., 2012).

Zaradi mestnega toplotnega otoka je lahko mesto občasno toplejše kot njegova okolica, še zlasti ponoči. Pozimi ima to pozitiven vpliv, saj je v mestu manj hladno, tj. temperature niso tako ekstremno nizke, poleti pa se lahko zaradi toplotnega otoka poslabša zdravje mestnih prebivalcev, predvsem starejših. Pri tem je treba poudariti, da so vročinski valovi in mestni toplotni otoki omejeni na posamezna območja. Gre za regionalne pojave, ki prizadenejo lokalna območja. Vročinski val leta 2003 je imel uničujoče posledice za francoska mesta, nizozemska mesta Amsterdam, Rotterdam in Haag pa so se tej naravni nesreči izognila. Statistični podatki niso pokazali izrazitejšega povečanja umrljivosti v teh mestih, kar pa ne moremo trditi za vročinski val, ki je isto območje prizadel leta 2006. Julija 2006 so bile namreč evidentirane najvišje temperature v nizozemski zgodovini, za posledicami vročine pa je umrlo 1.000 ljudi. Ker so vročinski valovi regionalni pojavi, mesta pa kompleksni lokalni urbani sistemi, se raziskave vplivov mestnih toplotnih otokov običajno osredotočajo na samo eno mesto, zaradi česar jih lahko kvečjemu opišemo kot študije primera. Raziskava, ki sta jo avtorja pomenljivo poimenovala Hotterdam in je predstavljena v tem članku, je študija primera vpliva mestnega toplotnega otoka v Rotterdamu. Njen glavni poudarek je na družbenih, morfoloških in prostorskih vidikih mesta, ki prispevajo k vplivu mestnega toplotnega otoka, ta pa se med drugim kaže tudi v povečani umrljivosti starejših prebivalcev med vročinskimi valovi.

1.2 Pomen in nujnost raziskave

Predstavljena raziskava je pomembna in nujna zaradi treh vzporednih procesov: spreminjajočega se podnebja, starajočega se prebivalstva in stalne urbane rasti somestja Randstad Holland. Pričakuje se, da bodo omenjeni procesi v prihodnje okrepili morebitne vplive mestnih toplotnih otokov na družbo.

Leta 2014 je nizozemski kraljevi meteorološki inštitut (niz. *Koninklijk Nederlands Meteorologisch Instituut*, v nadaljevanju: KNMI) objavil štiri scenarije prihodnjih podnebnih sprememb na Nizozemskem, ki vključujejo napovedi za leti 2050 in 2085. V skladu s temi scenariji inštitut napoveduje, da se bosta število vročih poletnih dni in verjetnost vročinskih valov povečala. Kakovost zraka naj bi se med vročimi poletji poslabšala in pojavijo se lahko daljša sušna obdobja. Zaradi višjih temperatur bo poleti umrlo več ljudi, vroča in problematična poletja pa bodo pogostejša kot zdaj (KNMI, 2014).

Nizozemski centralni statistični urad (niz. *Centraal Bureau voor de Statistiek*, v nadaljevanju: CBS) je izdal napoved glede rasti nizozemskega prebivalstva med letoma 2014 in 2060 (van Duin in Stoeldraijer, 2014). Do leta 2040 naj bi število ljudi, starih 65 let ali več, hitro naraslo z 2,9 na 4,8 milijona, nato pa naj bi se ustalilo pri dobrih 25 % celotnega prebivalstva. Po podatkih nizozemske okoljske agencije (niz. *Planbureau voor de Leefomgeving*, v nadaljevanju: PBL) in nizozemskega urada za gospodarske analize (niz. *Central Planning Bureau*, v nadaljevanju: CPB) se bo delež ljudi, starih 75 let ali več, še povečal (de Jong in Daalhuizen, 2014). Leta 2012 je delež prebivalcev v tej starostni skupini znašal 7,1 %, do leta 2040 pa naj bi se povečal na 14,5 %. Število ljudi, ki jih mestna vročina najbolj ogroža, se bo v naslednjih desetletjih podvojilo. Na razpolago je dovolj dokazov, na podlagi katerih lahko čezmerno umrljivost starejših prebivalcev pripišemo mestnim toplotnim otokom (Vandentorren idr., 2006; Heaviside idr., 2016).

Tudi skupno število prebivalstva v somestju Randstad Holland bo še naprej raslo. Po napovedih CBS in PBL (2011) naj bi se do leta 2025 povečalo za 700.000, med letoma 2025 in 2040 pa še za dodatnih 400.000 ljudi. Mesta na tem območju bodo najverjetneje imela manj zelenih površin in bodo postala manj prepustna, kar bi lahko okrepilo pojav mestnih toplotnih otokov (ozračja in površja) v mestih, kot so Amsterdam, Rotterdam in Haag.

1.3 Mestni toplotni otoki ozračja in površja

V okviru raziskave, predstavljene v tem članku, se mestni toplotni otoki ozračja nanašajo na razlike v temperaturi zraka med mesti in okoliškimi (zelenimi) območji. Te razlike lahko znašajo tudi do 10 °C, pojavijo pa se predvsem po sončnem zahodu. Podnevi so te razlike pogosto manjše. Čez dan se v mestu toplota kopiči v stavbah, pločnikih, vodnih površinah in tleh. Ko sonce zaide, mestno območje zaradi toplotne kapacitete in prevodnosti gradbenega materiala, ki se uporablja v grajenem okolju (zlasti betona in asfalta), to toploto oddaja počasi. V mestih ni naravnega hlajenja, ki ga običajno zagotavlja rastje, saj so pločniki in stavbe zamenjali večino prvotnih zelenih površin.

Mestni toplotni otoki površja se nanašajo na temperaturne razlike med posameznimi mestnimi površinami (in ne na razlike v temperaturi zraka): med strehami, prekritimi z bitumensko lepenko, in drevesnimi krošnjami, med pločniki in vodnimi površinami ipd. Te razlike so pogosto večje in se pojavljajo podnevi. Čez dan se prostorski vzorci mestnih toplotnih otokov površja in ozračja močno razlikujejo, ponoči pa se izenačijo, če je mestna površina edini še preostali vir toplote. Podatki o toplotnih otokih omogočajo boljše razumevanje energijskih procesov na mestnih območjih, ki se imenujejo tudi energijska bilanca površja (ang. *surface energy balance*; Harman, 2003).

1.4 Raziskovalna vprašanja

V raziskavi Hotterdam sta avtorja proučila učinek mestnega toplotnega otoka v Rotterdamu z vidika prilagajanja podnebnim spremembam. Ugotavljala sta, kateri novi vpogledi bi lahko pripomogli k temu, da bi se spremenilo obnašanje prebivalcev, da bi se izboljšala kakovost stavb in da bi se uvedle spremembe v grajenem okolju. Raziskavo je naročila mestna občina Rotterdam, ki je želela pridobiti podatke o obsegu vpliva urbanega toplotnega otoka v Rotterdamu, njegovih posledicah za prebivalce ter vlogi morfologije, rabe prostora in prostorske lokacije. V raziskavi sta avtorja obravnavala naslednja štiri vprašanja:

- Ali mestni toplotni otok vpliva na vse predele Rotterdama enako ali na nekatere vpliva bolj kot na druge ter kateri so ti predeli?
- Ali obstaja povezava med mestnim toplotnim otokom v Rotterdamu in umrljivostjo starejših prebivalcev med vročinskimi valovi?
- Ali lahko razlike v vplivu mestnega toplotnega otoka med posameznimi mestnimi predeli pojasnimo z morfologijo mesta in rabo prostora?
- Ali družbeni, morfološki in prostorski vidiki mestnega toplotnega otoka oblikujejo jasne prostorske vzorce, na podlagi katerih bi se lahko pri urbanističnem načrtovanju in upravljanju mesta uporabil pristop, ki se osredotoča na točno določeno območje?

2 Zgradba raziskave

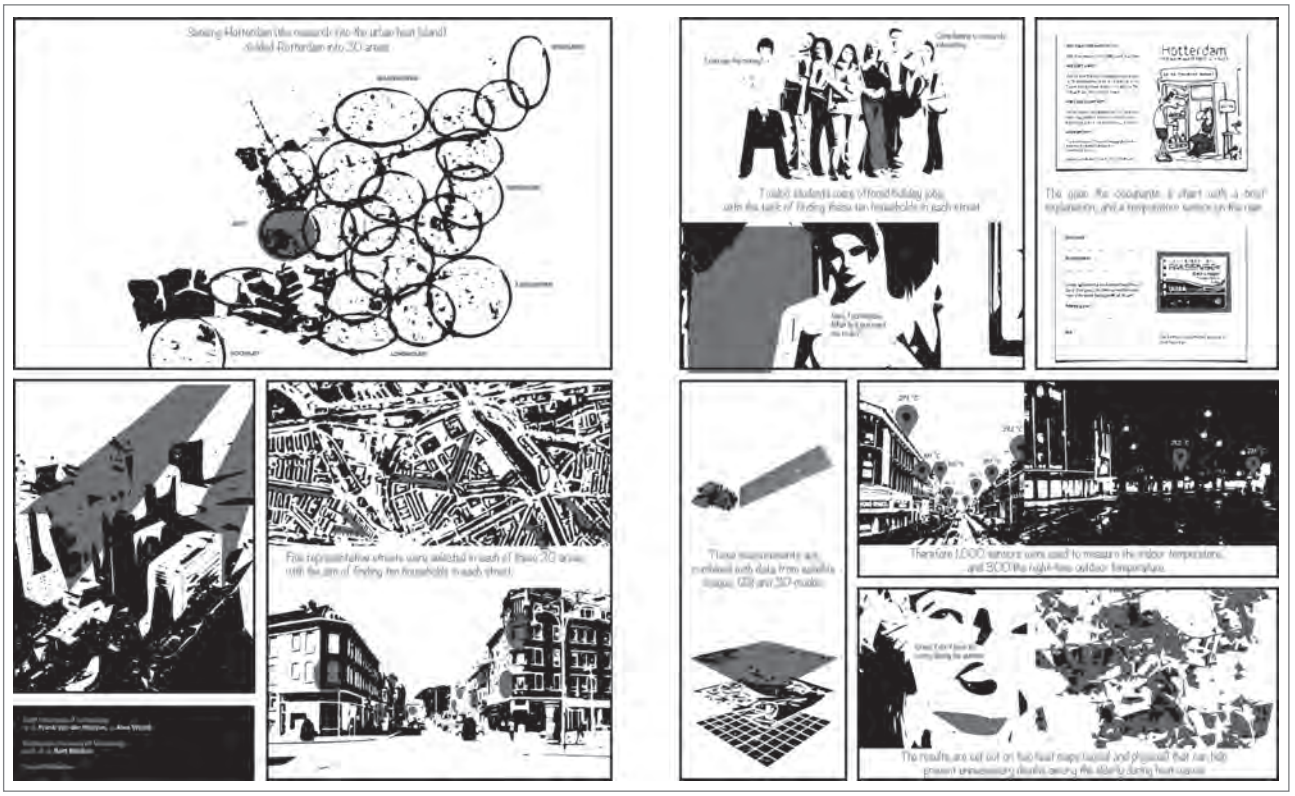
Raziskava je bila razdeljena na tri glavne faze. V prvi fazi sta avtorja zbirala podatke o mestnem toplotnem otoku v Rotterdamu, o njegovih prebivalcih in stanovanjih ter o morfologiji mesta in tamkajšnji rabi prostora. V drugi fazi sta podatke obdelala in jih predstavila na kartah, ki sta jih oblikovala v programu ArcGIS, pri čemer sta za vse uporabila enako celično mrežo. V tretji fazi sta z multivariatno regresijsko analizo osnovnih številskih podatkov posamezne mrežne celice proučila povezave med mestno toploto, čezmerno umrljivostjo, morfologijo in rabo prostora. Na podlagi rezultatov regresijskih analiz sta nato izvedla klastrsko analizo, s katero sta oblikovala t. i. družbeno in prostorsko temperaturno karto (ang. *heat map*). Posamezne faze so podrobneje predstavljene v nadaljevanju.

2.1 Zbiranje podatkov

V raziskavi so bili zbrani podatki o obsegu in jakosti mestnega toplotnega otoka, najbolj ogroženi skupini prebivalcev Rotterdama (vključno z dejavniki, ki jih še dodatno ogrožajo), morfologiji mesta in rabi prostora.

Zgodovinskih podatkov o vremenu v raznih soseskah Rotterdama ni. KNMI meritve tovrstnih podatkov izvaja na letališču Rotterdam-Haag, vendar samo na zahtevani razdalji od pozidanih območij. Čeprav ti podatki ne zadostujejo za opis temperaturnih razlik v mestu, sta avtorja na njihovi podlagi določila vročinski val, ki je julija 2006 močno vplival na zdravje starejših prebivalcev Rotterdama.

Zaradi pomanjkanja natančnih temperaturnih meritev mnogi raziskovalci za natančnejše določanje mestnih toplotnih otokov uporabljajo metode daljinskega zaznavanja ali mobilnega zaznavanja množic (ang. *crowdsensing*). Dousset in Gourmelon (2003) sta kot prva začela uporabljati satelitske posnetke za ugotavljanje in prikaz mestnih toplotnih otokov. Dokumentirala sta pojav pariškega toplotnega otoka med vročinskim valom avgusta 2003 in te podatke primerjala s čezmerno umrljivostjo, na kar je močno vplival ta vremenski pojav (Dousset in Gourmelon, 2003; Dousset idr., 2011). Lee Chapman idr. (2017) so pred kratkim metodo mobilnega zaznavanja množic uporabili za proučevanje londonskega toplotnega otoka, pri čemer so uporabili podatke osebnih vremenskih postaj Netatmo (posebnih naprav, ki so povezane v internet stvari in jih uporabljajo posamezniki).



Slika 1: Vizualna predstavitev (zgodboris) raziskave (avtor: Frank van der Hoeven)

V raziskavi Hotterdam sta avtorja pridobila satelitske posnetke Landsat 5 in Landsat 8 iz spletne aplikacije EarthExplorer ameriške znanstvene agencije USGS ter vanje v postopku predobdelave vnesla geometrične in atmosferske popravke. Podobno kot satelitski posnetki Evropske vesoljske agencije so tudi posnetki Landsat prosto dostopni na spletu.

Julija 2014 sta avtorja z uporabo pristopa laične znanosti izmerila zunanjo in notranjo temperaturo v 1.000 domovih in na 300 javnih prostorih v Rotterdamu (van der Hoeven idr., 2014). Temperature so bile izmerjene s cenovno ugodnimi senzorji, ki se običajno uporabljajo v prevoznem sektorju: nalepkami PakSense UltraContact za spremljanje temperature. Senzorji prikazujejo temperaturo z natančnostjo ±0,5 °C med delovanjem pri temperaturi od –10 °C do 30 °C. Avtorja sta najela deset študentov, izmed katerih je vsak poiskal po sto posameznikov, ki so bili pripravljeni sodelovati pri merjenju. Vsak je obiskal pet izbranih ulic v dveh izbranih soseskah, pri čemer je moral na vsaki ulici najti deset udeležencev tako, da je spraševal od vrat do vrat. Študenti so vsakemu stanovalcu na kratko predstavili raziskavo in mu izročili senzor skupaj s preprostimi navodili. Stanovalci so morali senzorje namestiti v dnevno sobo, in sicer na mesto, ki ni bilo neposredno izpostavljeno soncu, in stran od naprav, ki oddajajo toploto (televizijskih sprejemnikov ali računalnikov). Po dveh mesecih so študenti znova obiskali stanovalce in pobrali senzorje. Če koga takrat ni bilo doma, so ga znova obiskali, če pa stanovalca tudi tretjič ni bilo doma, so mu pustili kuverto, v kateri je lahko sam po pošti vrnil senzor. Senzorji so temperature merili od konca julija do sredine septembra 2014.

V istem obdobju sta avtorja na podlagi istovrstnih senzorjev merila tudi zunanjo temperaturo. Na vsako izmed stotih ulic sta namestila tri senzorje, torej sta pri merjenju uporabila skupno tristo senzorjev. Vsak senzor je bil opremljen z magnetkom, s katerim sta avtorja senzorje namestila na prometne znake dva metra nad tlemi, in sicer drugega za drugim na isti strani ulice. Senzorji so merili zunanjo temperaturo na istih ulicah, na katerih so stanovalci merili notranjo temperaturo. Tako sta lahko meritve med seboj primerjala.

Strokovnjaki za zbiranje in obdelavo podatkov mestne občine Rotterdam so avtorjema priskrbeli podatke iz različnih virov (uradov in organizacij):

- podatke o prebivalstvu iz rotterdamske občinske baze osebnih podatkov,
- podatke o rabi prostora iz rotterdamskega geografskega informacijskega sistema,
- podatke o prebivalstvu nizozemskega centralnega statističnega urada,
- dostop do digitalne karte nadmorskih višin za Nizozemsko (AHN),
- podatke o naslovih in stavbah iz posebne podatkovne baze, ki jo vodi občinski katastrski urad,
- dostop do digitalne topografske karte Nizozemske (TO-

Slika 2: Formula (a) in grafični prikaz energijske bilance površja (b) (avtor: Frank van der Hoeven)
Opombe: Q*: neto sevanje, QE: latentni toplotni tok, QH: senzibilni toplotni tok, QS: shranjeni toplotni tok.

P10NL) pri občinskem katastrskem uradu in
- podatke o energetski učinkovitosti stavb fundacije Bespaar Lokaal.

2.2 Obdelava in kartiranje podatkov

V programu ArcGIS sta avtorja izdelala geografsko podatkovno zbirko, v katero sta vključila vse pomembne informacije. Za vsak hektar v Rotterdamu oziroma za vsako mrežno celico, velikosti 100 m × 100 m, sta izdelala številske podatke za tretjo fazo raziskave (tj. multivariatne regresijske in klastrske analize). Uporabila sta najmanjšo prostorsko enoto, ki jo nizozemski centralni statistični urad uporablja za predstavitev demografskih podatkov, poleg tega je tudi ločljivost infrardečih podatkov, ki se uporablja na satelitskih posnetkih Landsat, dokaj podobna (120 m × 120 m). Manjša enota ne bi prinesla natančnejših rezultatov.

Avtorja sta v raziskavo vključila tudi geolocirane zdravstvene podatke, ki sta jih pridobila od občinskega statističnega urada. Uporaba zdravstvenih podatkov je pogosto otežena zaradi pomislekov glede kršitev zasebnosti, ker pa sta avtorja uporabljala visoko prostorsko ločljivost z velikostjo celice 100 m × 100 m, jima ni bilo treba pridobiti ali prikazati zasebnih podatkov o posameznih prebivalcih. Ker nista razkrila zasebnih podatkov, sta lahko podatkovne nize shranila v obliki odprtih podatkov. Na koncu sta podatke prikazala v zbirki kart ali atlasu, pri katerem je bila ločljivost 100 m × 100 m.

2.2.1 Toplota

Na podlagi podatkov KNMI sta avtorja proučila najvišje povprečne junijske, julijske in avgustovske temperature med letoma 2000 in 2013, nato pa sta jih primerjala s številom smrti med prebivalci Rotterdama, starimi 75 let ali več (podatke sta pridobila od CBS), da bi ugotovila, med katerimi vročinskimi valovi je umrlo največ ljudi v tej starostni skupini.

Sredi septembra 2014 sta ob pomoči študentov pobrala 800 od 1.000 razdeljenih senzorjev. Dvesto prebivalcev, ki so sodelovali v raziskavi, ni bilo doma ali se niso odzvali na prošnjo, naj vrnejo senzorje po pošti. Poleg tega sta pobrala 200 od 300 senzorjev, ki sta jih namestila na javnih mestih. Preostalih sto senzorjev je izginilo. Ker sta avtorja pričakovala, da bo nekaj

senzorjev izginilo, sta na vsako ulico namestila po tri in tako je na koncu na vsaki ulici ostal vsaj eden. Podatke s senzorjev sta nato ročno vnesla v podatkovno zbirko, oblikovano v ArcGIS.

Za določitev temperature površja v mestu sta uporabila metodo daljinskega zaznavanja. V ta namen sta pridobila satelitski posnetek Landsat 5, ki ga je NASA naredila med hudim vročinskim valom leta 2006. Posnetek je bil narejen 16. julija in prikazuje stanje v Rotterdamu po izjemno močni akumulaciji toplote v tleh, vodnih površinah, pločnikih in stavbah. Na podlagi infrardečega pasu na posnetku (pas 6) sta avtorja določila temperaturo površja. Atmosferski popravek tega pasu sta naredila z Nasinim spletnim orodjem Atmospheric Correction Parameter Calculator (Barsi idr., 2005), nato pa sta vse skupaj pretvorila v obliko, ki prikazuje temperaturo površja (Yale Center for Earth Observation, 2010), pri čemer sta uporabila prosto dostopno spletno aplikacijo Evropske vesoljske agencije BEAM-VISAT (zdaj jo je nadomestilo orodje SNAP). Karto temperatur površja sta vključila v podatkovno zbirko ArcGIS.

Isti satelitski posnetek sta avtorja uporabila tudi za izdelavo modela energijske bilance površja. To bilanco sta določila z aplikacijo ATCOR2, ki so jo razvili v nemškem letalskem in vesoljskem centru, uporablja pa se za izdelavo posnetkov neto sevanja ter senzibilnih, latentnih in shranjenih toplotnih tokov. Neto sevanje je enako vsoti absorbiranega kratkovalovnega sončnega sevanja in dolgovalovnega sevanja ozračja minus dolgovalovno sevanje površja. Senzibilni toplotni tok se nanaša na sevanje, ki segreva zrak, latentni toplotni tok na energijo, ki omogoča evapotranspiracijo in izparevanje vodnih površin, shranjeni toplotni tok pa na sevanje, ki ogreva stavbe, vodne površine in tla. Karte vseh štirih opisanih dejavnikov sta avtorja vključila v podatkovno zbirko, izdelano v programu ArcGIS.

2.2.2 Družbeno-prostorski vidiki

Med vročinskimi valovi se umrljivost med starejšimi prebivalci, zlasti starejšimi od 75 let, poveča. Prostorska razpršenost starejših prebivalcev in mestne razmere, ki vplivajo na njihovo umrljivost, so v Rotterdamu zelo različne. Avtorja sta znova uporabila mrežo, sestavljeno iz celic, velikosti 1 ha, s katero sta oblikovala karte za prikaz:

- koncentracije prebivalcev Rotterdama, starih 75 let,
- števila umrlih julija 2006 v starostni skupini 75 let ali več,
- povprečnega števila umrlih v isti starostni skupini julija v letih od 2000 do 2013,
- razlike med številom umrlih na hektar julija 2006 in povprečnim številom umrlih na hektar julija v letih od 2000 do 2013, kar je razkrilo, koliko ljudi več kot običajno je zaradi (mestne) vročine umrlo leta 2006.

Starost stanovanj in stopnja njihove toplotne izolacije deloma določata verjetnost prezgodnje smrti starostnikov (Vandentorren idr., 2006). Ker stanovanja dejansko delujejo kot filtri med notranjimi bivanjskimi razmerami in zunanjimi temperaturami, sta avtorja uporabila dva niza podatkov, ki bi lahko razkrila, kakšna je (energetska) kakovost stavb, v katerih ti ljudje živijo: podatke o energetski učinkovitosti in starosti stavb. Pri tem sta izračunala povprečje za vsak hektar.

2.2.3 Prostorski vidiki

Karti morfologije mesta in prostorske rabe sta temeljili na treh vrstah podatkov: podatkih tridimenzionalnega modela Rotterdama, satelitskih posnetkih in podatkih iz občinskega geografskega informacijskega sistema.

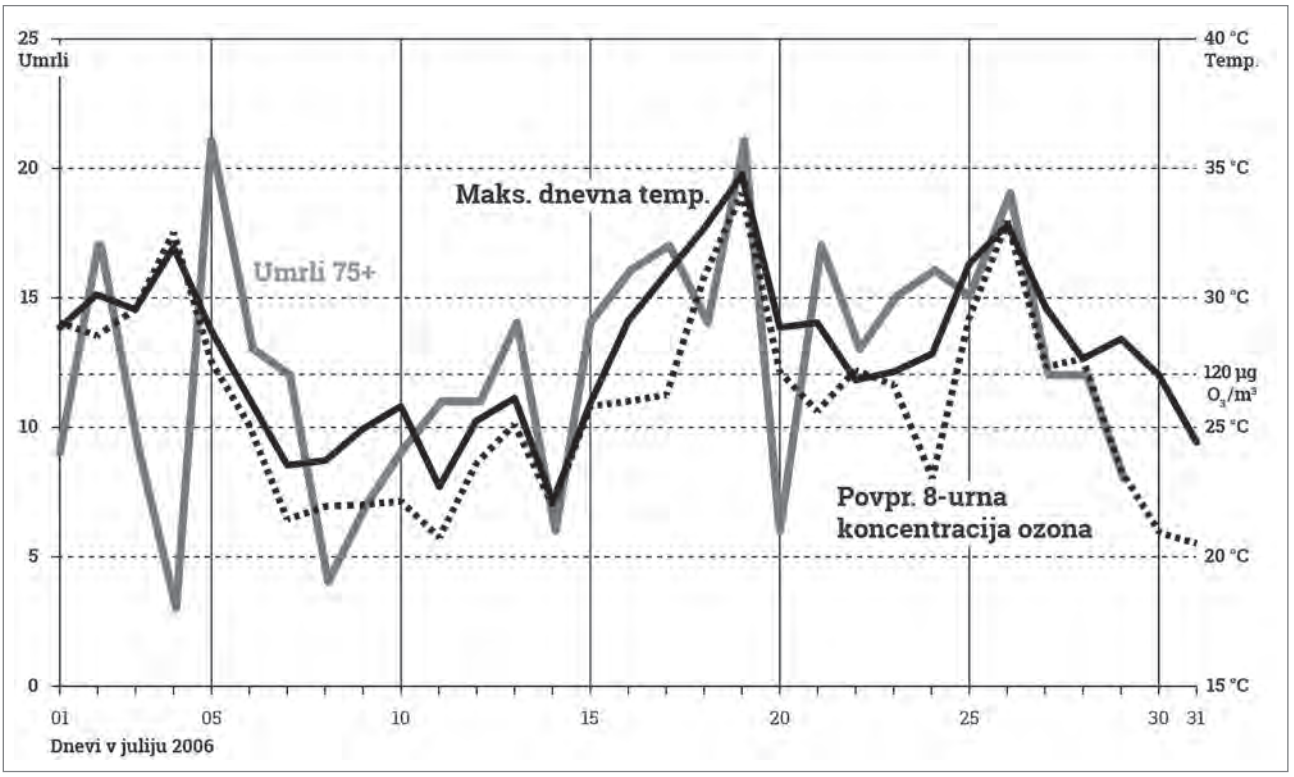
Stopnjo neprepustnosti površja kot vodilnega vzroka mestnega toplotnega otoka sta avtorja določila s posebno obdelavo satelitskih posnetkov: ločevanjem spektrov (ang. *spectral unmixing*). Pri analizi Rotterdama sta uporabila satelitski posnetek Landsat 5 (TM), ki ga je Nasa naredila 16. julija 2006, in posnetek Landsat 8 (OLI), narejen 22. julija 2014. Koeficient odbojnosti (albedo) površja, normalizirani diferencialni vegetacijski indeks NDVI in indeks listne površine sta izračunala z aplikacijo ATCOR2. NDVI in indeks listne površine sta stranska proizvoda atmosferskih popravkov v tej aplikaciji. Delež vodnih površin pa sta izračunala na podlagi karte TOP10NL.

Indeks stavbnega ovoja, stavbni volumen, delež vidnega neba in osenčenost so bili izračunani na podlagi tridimenzionalnega modela, ki je temeljil na podatkih o nadmorskih višinah AHN-2. Avtorja sta stavbni volumen obravnavala kot kazalnik zmožnosti shranjevanja toplote, za indeks stavbnega ovoja (tj. skupne površine streh in fasad na hektar) pa sta domnevala, da lahko pojasni izmenjavo toplote med stavbami in njihovo okolico. Delež vidnega neba sta izračunala s posebno kodo, ki so jo razvili raziskovalci pri ZRC SAZU (Zakšek idr., 2011).

Na podlagi zgoraj opisanega sta avtorja izdelala karte neprepustnih površin, vodnih površin, albeda površja, rastlinstva (NDVI in indeksa listne površine), osenčenosti, deleža vidnega neba, stavbnega volumna in stavbnega ovoja. Vse karte sta vključila v podatkovno zbirko ArcGIS, na njih prikazane podatke pa sta pretvorila v koeficiente, deleže (v odstotkih) in številske vrednosti na hektar.

Preglednica 1: Povprečne najvišje temperature in število umrlih, starih 75 let ali več, med poletjem 2006 in povprečne poletne vrednosti za obdobje 2000 – 2013

	Junij		Julij		Avgust	
Leto	Povprečna najvišja temperatura	Št. umrlih, starih 75 let ali več	Povprečna najvišja temperatura	Št. umrlih, starih 75 let ali več	Povprečna najvišja temperatura	Št. umrlih, starih 75 let ali več
2006	21,3 °C	308	27,8 °C	385	20,5 °C	293
povprečje za celotno obdobje 2000 – 2013	20,7 °C	298	22,4 °C	310	22,3 °C	292



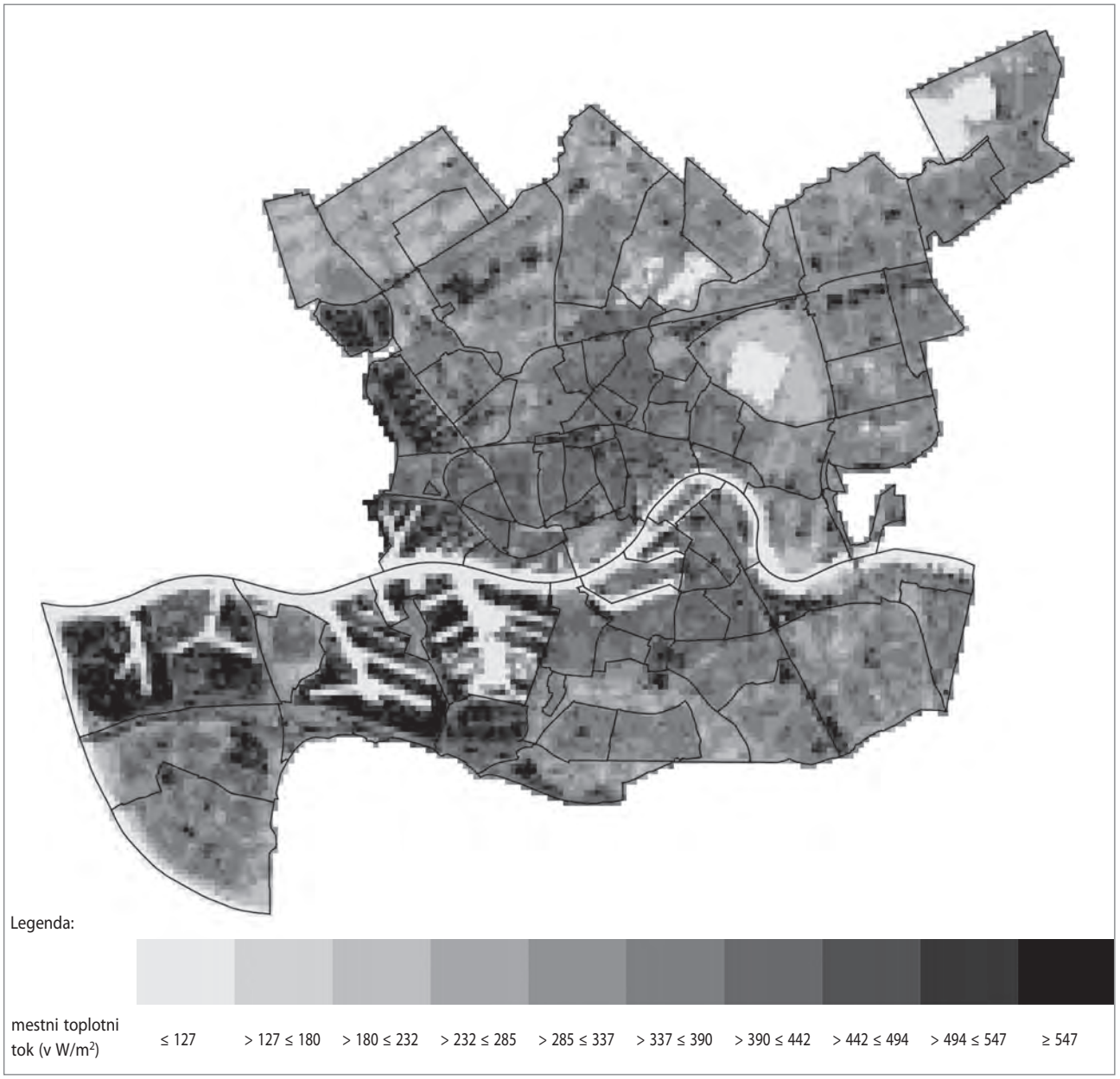
Slika 3: Vročinski val leta 2006 v Rotterdamu, število umrlih, starih 75 let ali več, najvišje dnevne temperature (v °C) in koncentracija ozona (vir: van der Hoeven in Wandl, 2015c)

2.3 Multivariatna regresijska analiza in klastrska analiza

Vettorato (2010) je kot prvi proučil povezavo med morfologijo in prostorsko rabo ter temperaturo površja na podlagi metode daljinskega zaznavanja, multivariatne regresijske analize in geografskega informacijskega sistema. Avtorja sta se pri zasnovi raziskave Hotterdam zgledovala po njegovi študiji italijanskega mesta Trento.

Z multivariatno in hierarhično regresijsko analizo sta določila povezave med toploto (energijsko bilanco površja in temperaturami) in družbeno-prostorskimi vidiki. V prvi fazi sta analizirala, kateri kazalnik temperatur in energijske bilance površja bi lahko najbolje pojasnil čezmerno umrljivost ljudi, starih 75 let ali več, v Rotterdamu julija 2006. V drugi fazi sta ta kazalnik povezala z morfologijo mesta in njegovo prostorsko rabo. Statistično značilne družbene ter morfološke in prostorske vidike sta združila v skupine in jih prikazala na družbeni in prostorski temperaturni karti. Na podlagi teh dveh kart in podatkov, na katerih temeljita, lahko bolje razumemo ogroženost starejših prebivalcev Rotterdama zaradi vpliva mestnega toplotnega otoka med vročinskimi valovi.

Avtorja sta najprej izvedla hierarhično večkratno regresijsko analizo na vseh hektarjih (mrežnih celicah) proučevanega območja, da bi ugotovila, kateri vidiki bolje napovedo umrljivost prebivalcev, starih 75 let in več. V regresijski model sta vključila zunanjo in notranjo temperaturo zraka, temperaturo površja, neto sevanje, senzibilni, latentni in shranjeni toplotni tok ter energetsko učinkovitost in starost stavb. Nato sta večkratno regresijsko analizo izvedla še za to, da bi napovedala pojav me-



Slika 4: Skupni senzibilni in shranjeni toplotni tok 16. julija 2006 (avtor: Frank van der Hoeven)

stnega toplotnega otoka na podlagi prostorskih in morfoloških vidikov mesta. V regresijski model sta vključila neprepustne površine, vodne površine, albedo površja, rastlinstvo (NDVI in indeks listne površine), osenčenost, delež vidnega neba, stavbni volumen in stavbni ovoj. Pri tem so bile izpolnjene predpostavke o linearnosti odnosa, neodvisnosti napak, homoskedastičnosti, nepričakovanih točkah in normalni porazdelitvi ostankov. Na koncu sta na podlagi rezultatov regresijske analize izvedla še klastrsko analizo v dveh korakih za vse naseljene mrežne celice v mestu. Pri tem sta oblikovala različne skupine (ali tipologije), ki so bile podlaga za oblikovanje družbene in prostorske temperaturne karte.

3 Rezultati

3.1 Kakšna bi bila lahko prihodnja poletja v Rotterdamu: julij 2006

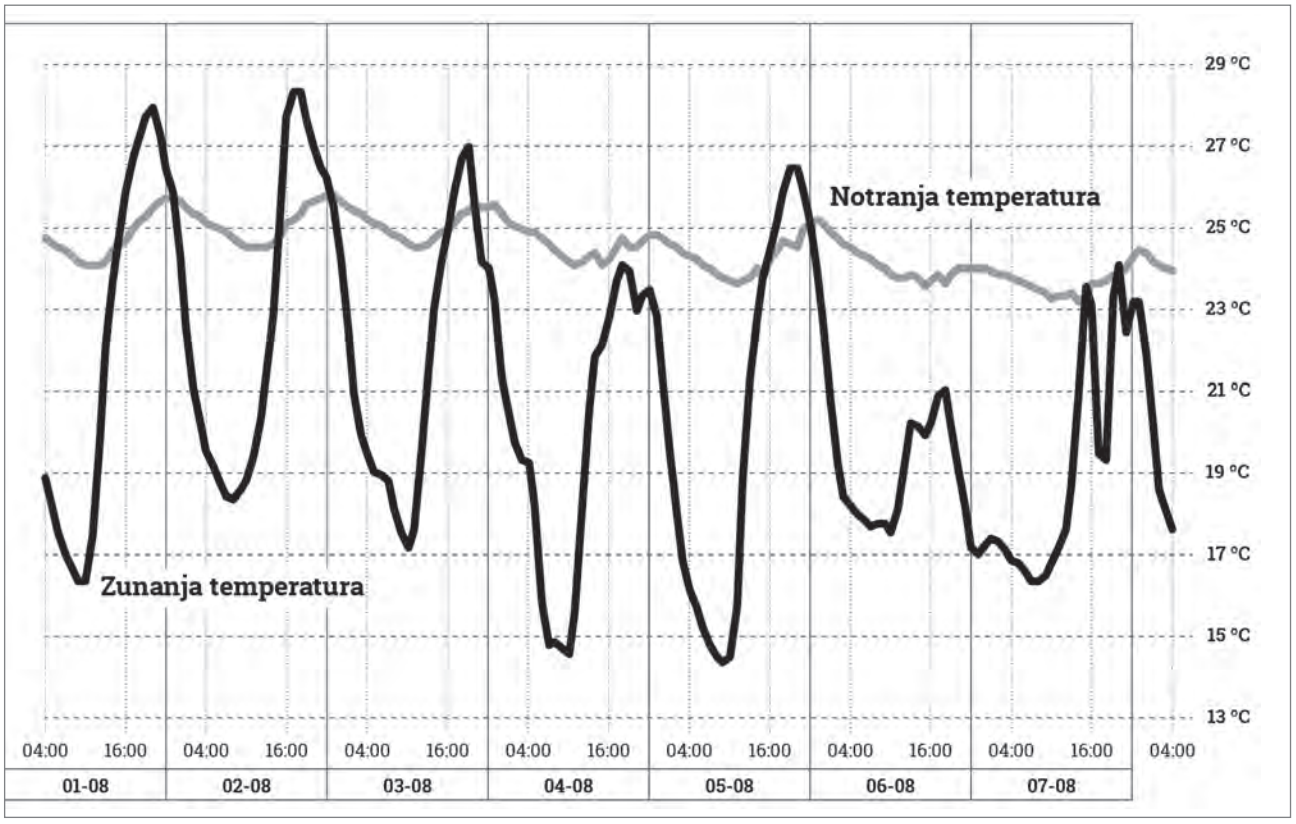
Avtorja sta na podlagi podatkov KNMI in CBS ugotovila, da so bile v poletnih mesecih od junija do avgusta v letih od 2000 do 2013 najvišje povprečne temperature (27,8 °C) in najvišja stopnja umrljivosti med prebivalci, starimi 75 let ali več, v Rotterdamu evidentirane julija 2006. To je bil najbolj vroč mesec v tristoletni zgodovini dokumentiranja vremenskih podatkov na Nizozemskem. Po podatkih CBS (2006)

Slika 5: Čezmerna umrljivost prebivalcev, starih 75 let ali več, julija 2006, izražena v absolutnih številkah (avtor: Frank van der Hoeven)

je julija 2006 umrlo 1.000 nizozemskih državljanov več kot običajno. S 1.000 umrlimi zaradi rekordne vročine je bila leta 2006 Nizozemska na tretjem mestu svetovne lestvice meteoroloških nesreč (CRED, 2016). Zaradi teh dejstev sta se avtorja odločila, da bosta julij 2006 vzela kot model, na podlagi katerega bi lahko napovedala, kakšna bodo prihodnja poletja v Rotterdamu. Mestna občina Rotterdam je julija 2006 evidentirala 75 smrtnih primerov več, kot je povprečje za ta mesec (izračunano za obdobje 2000 – 2013). V primerjavi s povprečjem, ugotovljenim za celotno obdobje 2007 – 2013, pa je ta številka še večja (tj. 90 smrtnih primerov več).

Pregled dnevnih podatkov za julij 2006 je pokazal, da je bila stopnja umrljivosti starejših prebivalcev Rotterdama najvišja dva do tri dni po najvišji izmerjeni temperaturi, podobno kot je to leta 2006 ugotovil že CBS. Koncentracije ozona so bile najvišje ob dnevih, ko so bile izmerjene tudi najvišje zunanje temperature. Ti podatki niso dovolj natančni, da bi jih lahko povezali s povečano umrljivostjo, saj se koncentracija ozona meri samo na treh lokacijah v mestu. Obstaja pa velika možnost, da je imel vročinski val leta 2006 tako močne posledice za zdravje ljudi tudi zaradi povečane koncentracije ozona.

Na sliki 3 črna črta označuje najvišje dnevne temperature, prekinjena črta pa koncentracije ozona. Na desni je označena najvišja dovoljena koncentracija ozona v Evropski uniji (120 µg na kubični meter zraka). Siva črta označuje stopnjo umrljivosti med ljudmi, starimi 75 let ali več. Avtorja sta pri stopnji umrlji-



Slika 6: Temperature zraka, izmerjene v izbranih stanovanjih in ulicah Rotterdama. Diagram prikazuje povprečja vseh 800 meritev notranjih temperatur (siva črta) in vseh 200 meritev zunanjih temperatur (črna črta), opravljenih v prvem tednu avgusta 2014 (vir: van der Hoeven in Wandl, 2015c).

vosti upoštevala vrednosti z dvodnevnim zamikom, tako da sta lahko skupaj prikazala najvišje temperature, stopnjo umrljivosti in koncentracije ozona.

3.2 Atlas

Druga faza raziskave je obsegala obdelavo in kartiranje podatkov o toploti, družbenih ter morfoloških in prostorskih vidikih Rotterdama. Rezultat te faze je bila podatkovna zbirka, izdelana v programu ArcGIS in objavljena v obliki atlasa (glej van der Hoeven in Wandl, 2015c). Pri tem sta podrobneje predstavljeni dve karti: karta, ki prikazuje skupni senzibilni in shranjeni toplotni tok (slika 4), in karta, ki prikazuje čezmerno umrljivost prebivalcev, starih 75 let ali več (slika 5). Najboljši primer kartiranja podnebnih vidikov in prikaza njihovih posledic za urbanistično in prostorsko načrtovanje je bil uporabljen v nemški publikaciji Städtebauliche Klimafibel (Ministerium für Verkehr und Infrastruktur Baden-Württemberg, 2004), ki sta jo avtorja tega članka vzela za zgled.

3.2.1 Kazalniki toplote

Avtorja sta rotterdamski toplotni otok proučevala tako, da sta kartirala štiri možne kazalnike: zunanjo in notranjo temperaturo zraka (pridobljeno z uporabo metode mobilnega zaznavanja množic), temperaturo površja (pridobljeno z daljinskim zaznavanjem) in energijsko bilanco površja (določeno z analizami, opravljenimi z orodjem ATCOR2, ki so temeljile na daljinskem zaznavanju). Podatki o energijski bilanci površja ter temperaturi površja in zraka kažejo na očiten vpliv toplotnega otoka v Rotterdamu. Vpliv mestnega toplotnega otoka površja je najmočnejši v pristanišču ter industrijskih in poslovnih predelih mesta, vplivu mestnega toplotnega otoka ozračja pa so najbolj izpostavljeni mestno središče in gosto pozidane stanovanjske soseske v severnem, južnem in zahodnem Rotterdamu.

Meritve na podlagi metode mobilnega zaznavanja množic so pokazale mešane rezultate. Ljudje so bili pripravljeni sodelovati v raziskavi, zato sta avtorja zlahka našla 1.000 posameznikov, ki so pomagali pri meritvah. Težava je bila v tem, da so bili senzorji razdeljeni konec julija 2014 in da se je nato avgust 2014 izkazal za najhladnejšega v 90 letih. Zbrani podatki so lahko temelj za nadaljnje raziskave, niso pa ponazorili značilnosti omenjenega vročinskega vala, kot sta avtorja upala. Pravzaprav ne izražajo niti povprečnega nizozemskega poletja.

Na sliki 6 so prikazani povprečni rezultati meritev senzorjev v prvem tednu avgusta (ko so bile temperature nad 25 °C).

prebivalci, stari 75 let ali več /ha	77	4	5	4	2	1
starost stavb (v letih)	36	85	59	27	23	88
tok mestne toplote (v W/m^2)	363	411	353	396	314	294

Slika 7: Družbena temperaturna karta: prostorski vzorec ogroženosti starejših zaradi vpliva mestnega toplotnega otoka v Rotterdamu (vir: van der Hoeven in Wandl, 2015c)

Preglednica 2: Podrobnejša predstavitev posameznega regresijskega modela

Spremenljivka	Število umrlih, starih 75 let ali več					
	Model 1		Model 2		Model 3	
	B	β	B	β	B	β
konstanta	0,048**		–0,043**		–0,58**	
št. umrlih, starih 75 let ali več (2006)	0,002**	0,095	0,002**	0,775	0,001**	0,652
starost stavb			0,000066**	0,213	0,000034**	0,108
mestni toplotni tok (2006)					0,000011**	0,232
R^2	0,819		0,847		0,859	
F	320,6		193,6		140,2	
ΔR^2	0,816		0,843		0,853	
ΔF	320,6		12		5,9	

** $p < 0{,}005$

Preglednica 3: Regresijski koeficienti in standardne napake

Spremenljivka	B	SN_B	β
konstanta	281,3	2,6	
voda	–0,011	0,0002	–0,313**
neprepustnost	217,8	2,708	0,680**
indeks listne površine	–0,13	0,001	–0,077**
stavbni ovoj	–0,0002	0,0001	–0,005**
osenčenost	$-1{,}034 \times 10^{-6}$	$4{,}2475 \times 10^{-8}$	–0,086**

Opombe: ** $p < 0{,}005$, B: nestandardizirani regresijski koeficient, SN_B: standardna napaka koeficienta, β: standardizirani koeficient, odvisna spremenljivka: tok mestne toplote.

neprepustnost	0,80	0,59	0,58	0,39	0,37	0,36	0,09	0,06
indeks listnih površin	249	350	557	1.014	1.056	262	2.074	27
stavbni ovoj (v m^2/ha)	1.261	8.136	4.269	1.139	663	732	136	23
vodne površine	3 %	2 %	4 %	7 %	8 %	54 %	8 %	96 %
osenčenost	2,4	2,8	3,9	1,4	4,5	2,9	2,8	2,5
tok mestne toplote (v W/m^2)	456	406	375	324	316	311	242	119

Slika 8: Prostorska temperaturna karta: prostorski vzorec rabe tal in urbane oblike, ki bolj ali manj prispevajo k nastanku mestnega toplotnega otoka v Rotterdamu (vir: van der Hoeven in Wandl, 2015c)

Razen najvišjih popoldanskih zunanjih temperatur so bile na proučevanih ulicah notranje temperature zraka v povprečju višje od zunanjih. Podnevi so bile razlike v notranjih temperaturah manjše kot pri zunanjih. Zunanje okolje ima očitno zadosten ohlajevalni učinek, da večji del dneva ustrezno znižuje temperaturo v stanovanjih. Primerjava meritev na ravni celotnega mesta kaže, da so notranje temperature prostorsko manj koherentne od zunanjih. Končni rezultati analize toplote so karte, na katerih sta avtorja prikazala zunanjo in notranjo temperaturo zraka, temperaturo površja podnevi, neto sevanje ter latentni, senzibilni in shranjeni toplotni tok.

3.2.2 Družbeno-prostorski vidiki

Na podlagi obdelave in kartiranja družbenih vidikov mestne toplote sta avtorja izdelala pet kart, ki se nanašajo na stanje julija 2006:

- karto, ki prikazuje prostorsko porazdelitev ljudi, starih 75 let ali več;
- karto, ki prikazuje stopnjo umrljivosti ljudi, starih 75 let ali več;
- karto nadpovprečne stopnje umrljivosti;
- karto starosti stavb;
- karto povprečne energetske učinkovitosti stavb na hektar.

Ranljiva skupina prebivalcev, starih 75 let ali več, je večinoma zgoščena v mestnih soseskah, zgrajenih po drugi svetovni vojni (Schiebroek, Ommoord, IJsselmonde, Zuidwijk, Pendrecht in Hoogvliet), kjer so tudi številni domovi za ostarele. Nadpovprečna stopnja umrljivosti med vročinskim valom julija 2006 pa kaže bolj razpotegnjen prostorski vzorec (slika 5), kar pomeni, da za razlago umrljivosti starejših potrebujemo več kazalnikov kot samo prostorsko koncentracijo prebivalcev, starih 75 let ali več.

Avtorja sta za proučitev tega, kje v Rotterdamu ogroženost zaradi vročine povzroča težave starejšim, izvedla multivariatno regresijsko analizo. Julija 2006 je umrlo 385 starejših prebivalcev, od katerih lahko samo 75 – 90 smrti obravnavamo kot presežne. Avtorja sta hierarhično večkratno regresijsko analizo izvedla za vse hektarje proučevanega območja, da bi ugotovila, kateri družbeni vidiki bi lahko bolje napovedali število umrlih prebivalcev, starih 75 let ali več. V regresijski model sta vključila zunanjo in notranjo temperaturo zraka, temperaturo površja, neto sevanje, senzibilni, latentni in shranjeni toplotni tok ter energetsko učinkovitost in starost stavb.

Regresijski model, ki je vključeval število prebivalcev, starih 75 let ali več, skupni senzibilni in shranjeni toplotni tok ter povprečno starost stavb, je bil statistično najznačilnejši za napoved števila umrlih, starih 75 let ali več. Vključitev skupnega senzibilnega in shranjenega toplotnega toka v napoved števila umrlih v tej starostni skupini je povzročil statistično značilno povečanje vrednosti koeficienta determinacije R^2 za 0,050 pri $F(2, 71) = 4{,}2147$ in $p < 0{,}05$. Tudi vključitev starosti stavb v napoved (model 3) je povzročila statistično značilno povečanje vrednosti koeficienta determinacije R^2 za 0,093 pri $F(1, 95) = 8{,}699$ in $p < 0{,}005$. Uporabljeni regresijski modeli so podrobneje predstavljeni v preglednici 2.

Na podlagi rezultatov regresijske analize (tj. števila prebivalcev, starih 75 let in več, povprečne starosti stavb in skupnega senzibilnega in shranjenega toplotnega toka) sta avtorja izvedla klastrsko analizo v dveh korakih za vse naseljene mrežne celice v mestu. Pri tem sta oblikovala šest skupin (tipologij), ki so prikazane na karti na sliki 7 in spremljajoči legendi, v kateri so pojasnjene posamezne vrednosti. Prostorska razpršenost starejših v Rotterdamu je še vedno posledica navade Nizozemcev, da starejše sorodnike nameščajo v domove za ostarele (črna območja na karti). Tem lokacijam je treba nameniti posebno pozornost, ustrezen odziv politike pa bi bil potreben tudi za soseske okoli središča mesta (tj. v severnem, južnem in zahodnem Rotterdamu). Čeprav v teh soseskah živi manj starejših na hektar, so izpostavljene večji mestni toploti, stanovanja so tam razmeroma stara, površina teh območij pa je kar velika.

3.2.3 Prostorski vidiki

Kazalnik skupnega senzibilnega in shranjenega toplotnega toka (tj. skupne toplote, ki segreva zrak in stavbe) je najbolje pojasnil vpliv mestnega toplotnega otoka na omenjeno ogroženo skupino rotterdamskega prebivalstva. V naslednjem koraku sta avtorja ugotavljala, katere prvine morfologije in prostorske rabe vplivajo na nastanek senzibilnega in shranjenega toplotnega toka v mestu.

V tem koraku klastrske analize sta uporabila karte, ki se nanašajo na neprepustne površine, vodne površine, albedo, rastlinstvo, osenčenost, delež vidnega neba, stavbni volumen in stavbni ovoj. Tovrstno združevanje v skupine daje vpogled v to, katerim kombinacijam morfologije in prostorske rabe bi se moralo mesto izogibati in katere bi moralo pogosteje uporabljati.

Avtorja sta za napoved skupnega senzibilnega in shranjenega toplotnega toka opravila večkratno regresijsko analizo. Neprepustnost, indeks listne površine, indeks stavbnega ovoja, vodne površine in osenčenost so bile spremenljivke, ki so najbolje napovedale učinek mestnega toplotnega otoka: $F(5, 1.5951) = 19.167{,}694$, $p < 0{,}0005$, prilagojeni $R^2 = 0{,}857$. Vseh pet spremenljivk je statistično značilno napovedalo opisani pojav pri $p < 0{,}0005$. Regresijski koeficienti in standardne napake so predstavljeni v preglednici 3.

Na podlagi rezultatov regresijske analize, ki so se nanašali na neprepustnost, indeks listne površine, stavbni ovoj, vodne površine in osenčenost, sta avtorja izvedla klastrsko analizo v

dveh korakih za vse mrežne celice (100 m × 100 m) v mestu. Rezultat klastrske analize je bilo osem kombinacij morfoloških in prostorskih značilnosti, ki so prikazane na karti na sliki 8 skupaj z legendo, v kateri so razložene posamezne vrednosti. Pri nastanku mestnega toplotnega otoka imajo pomembno vlogo pristanišče ter industrijska in poslovna območja v Rotterdamu. Ta območja na družbeni temperaturni karti niso prikazana, saj tam nihče ne živi. Mestno središče ter okoliške gosto pozidane soseske severnega, južnega in zahodnega Rotterdama imajo več morfoloških in prostorskih značilnosti, ki povzročajo problem mestnega toplotnega otoka, kot pa drugi predeli mesta.

4 Sklep

V raziskavi Hotterdam sta avtorja proučevala vpliv mestnega toplotnega otoka v Rotterdamu, pri čemer sta se osredotočila na štiri raziskovalna vprašanja:

1. Ali mestni toplotni otok vpliva na vse predele Rotterdama enako ali na nekatere vpliva bolj kot na druge; kateri so ti predeli?
Avtorja sta ugotovila, da mestni toplotni otok ne vpliva na vse dele Rotterdama enako. Industrijska območja in pristanišče najmočneje občutijo njegov vpliv, poleg tega ta pojav močneje vpliva na območja severno, južno in zahodno od središča mesta kot na druga območja v mestu.

2. Ali obstaja povezava med mestnim toplotnim otokom v Rotterdamu in umrljivostjo starejših prebivalcev med vročinskimi valovi?
Avtorja sta ugotovila povezavo med čezmerno umrljivostjo starejših prebivalcev in statistično pojasnila nadpovprečno umrljivost prebivalcev, starih 75 let in več, v Rotterdamu julija 2006 na podlagi:
- prostorske razporeditve ljudi v tej starostni skupini,
- leta gradnje njihovih domov,
- kupnega senzibilnega in shranjenega toplotnega toka.

3. Ali lahko razlike v vplivu mestnega toplotnega otoka med posameznimi mestnimi predeli pojasnimo z morfologijo mesta in rabo prostora?
Da. Med posameznimi območji obstajajo razlike v akumulirani mestni toploti (in povezanih zdravstvenih težavah) zaradi kombinacije morfoloških in prostorskih značilnosti, kot so:
- neprepustne površine,
- vodne površine,
- listnate (zelene) površine,
- stavbni ovoji in
- osenčenost.

Ti vidiki vplivajo na to, ali se na posameznem območju kopiči več ali manj mestne toplote in ali imajo na njem ljudje več ali manj s tem povezanih zdravstvenih težav.

4. Ali družbeni, morfološki in prostorski vidiki mestnega toplotnega otoka oblikujejo koherentne prostorske vzorce, na podlagi katerih bi se lahko pri urbanističnem načrtovanju in upravljanju mesta uporabil pristop, ki se osredotoča na točno določeno območje?
Klastrska analiza podatkov je pokazala koherentne prostorske vzorce. Industrijska območja in pristanišče v Rotterdamu so močno povezani s pojavom mestnega toplotnega otoka. Ker na teh območjih nihče ne živi, avtorja priporočata, da se pristojna politika raje osredotoči na območja severno, južno in zahodno od mestnega središča, zgrajena pred drugo svetovno vojno, za katere so značilne razmeroma visoke temperature površja, razmeroma močan skupni senzibilni in shranjeni toplotni tok ter višje zunanje temperature. Delež starejših ljudi, ki živijo na teh območjih, pa je še vedno precej velik.

Frank van der Hoeven
TU Delft, Faculty of Architecture and the Built Environment, Delft, Nizozemska
E-naslov: f.d.vanderhoeven@tudelft.nl

Alexander Wandl
TU Delft, Faculty of Architecture and the Built Environment, Delft, Nizozemska
E-naslov: a.wandl@tudelft.nl

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Začetni izsledki raziskave Hotterdam so bili v nizozemščini in angleščini objavljeni v publikaciji, ki je prosto dostopna na svetovnem spletu in namenjena širši lokalni javnosti (van der Hoeven in Wandl, 2015b, 2015c). Za podrobnejši vpogled v izsledke sta avtorja vse podatke shranila v prosto dostopno podatkovno zbirko 4TU.Centre for Research Data (Wandl in van der Hoeven, 2015).

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Ion MALEAS

Socialna stanovanja v predmestjih: nosilci primestne raznolikosti?

V zadnjih letih francoska urbanistična politika zahteva razmislek o možnih povezavah in stičiščih med značilnima in skoraj protislovnima oblikama stanovanjske gradnje: kolektivnimi socialnimi stanovanji in predmestnimi enodružinskimi hišami. V Franciji veljata zakona, ki spodbujata nasprotujočo si dinamiko na stanovanjskem trgu: zakon o solidarnosti in urbani prenovi, sprejet leta 2000, spodbuja gradnjo socialnih stanovanj in od občin zahteva, da dosegajo zahtevano kvoto, zakon o stanovanjih in prenovljenem urbanizmu, sprejet leta 2014, pa pospešuje zasebno gradnjo, da bi se z zgoščevanjem predmestne gradnje omejilo nenačrtno širjenje mest. Zaradi teh dveh nasprotujočih si načrtovalskih pristopov so lokalne oblasti prisiljene izvajati kompleksne politike, katerih uresničljivost je vprašljiva. V članku je avtor predstavil glavna socialna in politična pojma, na podlagi katerih se v Franciji spodbuja gradnja socialnih stanovanj, in sicer pravico do stanovanja in, kar je najpomembnejše z vidika predmestij, socialno raznolikost sosesk. V povezavi s tem je obravnaval pomen socialne raznolikosti za predmestja in predstavil nekaj uspešno izvedenih projektov gradnje socialnih stanovanj v predmestnih soseskah. Članek je zaokrožil z razpravo o možnih metodah reševanja nasprotja med dinamiko gradnje socialnih stanovanj in procesi zgoščevanja zasebne gradnje v predmestjih.

Ključne besede: urbanistična politika, socialna stanovanja, socialna raznolikost, predmestja, enodružinske hiše

1 Uvod

Kolektivna socialna stanovanja in predmestne enodružinske hiše so značilne oblike stanovanjske gradnje, ki v novejšem obdobju prevladujejo na francoskih mestnih in primestnih območjih ter v političnih in akademskih razpravah o stanovanjih in mestnem okolju na splošno. Ti obliki se redko povezujeta in skoraj nemogoče si ju je zamišljati skupaj; socialni stanovanjski bloki ali t. i. *grands ensembles* modernizma in samostojne predmestne hiše, zgrajene v slogu novega urbanizma, pogosto delujejo kot svoja popolna nasprotja (Lelévrier, 2014). Novejša francoska urbanistična politika kljub vsemu zahteva razmislek o možnih povezavah in stičiščih med tema oblikama. Ta razmislek spodbuja posebni pravni okvir, ki ga določata zlasti dva zakona: zakon o solidarnosti in urbani prenovi (fra. *Solidarité et renouvellement urbain*, v nadaljevanju: SRU), sprejet leta 2000, in zakon o stanovanjih in prenovljenem urbanizmu (fra. *Logement et un urbanisme rénové*, v nadaljevanju: ALUR), sprejet leta 2014. Zakona imata velik vpliv na razprave o socialnih in predmestnih stanovanjih.

Avtor je najprej na kratko predstavil literaturo z obravnavanega področja in s tem opredelil temo članka. Nato je proučil francoski področni pravni okvir in urbanistične politike, na podlagi česar je oblikoval hipotezo, da se v francoskih predmestjih izvajata nasprotujoči si stanovanjski politiki, ki temeljita na SRU in ALUR. Nasprotujoče si stanje se dogaja med izvajanjem politike, ki zahteva, da ima vsaka občina v skupnem stanovanjskem fondu tudi določen delež socialnih stanovanj, in politike, ki pospešuje zgoščevanje gradnje v predmestjih in posledično več zasebnih gradenj. Za boljše razumevanje opisanega stanja je avtor analiziral številne politike, ki v Franciji spodbujajo gradnjo socialnih stanovanj. Socialna raznolikost je glavni dejavnik, na podlagi katerega se spodbuja tovrstna gradnja, avtor pa proučuje, kakšen pomen ima za predmestja, zaradi česar je pregledal tudi socialne značilnosti francoskih predmestij. Na koncu članka je predstavil nekaj primerov gradnje socialnih stanovanj v francoskih predmestjih, na podlagi katerih razpravlja o možnih načinih reševanja opisanih nasprotujočih si politik, poleg tega je predstavil predloge za sistematično gradnjo socialnih stanovanj v predmestjih.

2 Kontekst predmestij

Avtor je v članku najprej predstavil statistične in pravne vire ter publikacije, ki obravnavajo vprašanje predmestij, pri čemer se je osredotočil na francoske primere. V besedilu uporablja izraza primestje in predmestje. Prvi se nanaša na lokacijo in se v odnosu do mestnega središča razume kot njegovo obrobje, ki okrog središča običajno tvori koncentrične kroge (Dodier in Cailly, 2008), drugi pa se večinoma razlaga z morfološkega vidika, in sicer kot območje, kjer je čedalje več enodružinskih hiš (Duany idr., 2010). Res pa je, da se ti značilnosti (ena lokacijska in druga morfološka) pogosto pojavljata druga ob drugi in sta v francoski literaturi pogosto zamenljivi.

Vprašanje predmestij je kompleksno, njihova razširjenost in čedalje večja pojavnost po vsem svetu pa sta že dolga leta tema mednarodnih akademskih razprav. Med pomembnejšimi avtorji v ZDA, pri čemer Združene države pogosto veljajo za vzorčen primer uporabe predmestnega modela, sta Kenneth Terry Jackson (avtor dela *Crabgrass Frontier: The Suburbanization of the United States*, 1985) in Robert Fisherman (avtor knjige *Bourgeois Utopias: The Rise and Fall of Suburbia*, 1987), ki proučujeta socialno-ekonomske vzroke nastanka predmestij ter pomen zasebne lastnine in stanovanjskega lastništva ter obravnavata dejavnike, kot sta nizka gostota prebivalstva in prevladujoči stanovanjski status. V Italiji sta predmestja najprej proučevala Francesco Indovina, ki je leta 1990 uporabil izraz razpršeno mesto (ita. *citta difussa*), in Bernardo Secchi, ki je podobne pojave raziskoval na evropski ravni. Oba avtorja sta opozorila na rastoči obseg mest, večinoma zaradi razpršenosti stanovanjske funkcije (Indovina, 1990; Crysler idr., 2012). Podobno je v knjigi, objavljeni leta 1997, Thomas Sieverts na primeru Porurja raziskoval pojav vmesnega mesta (nem. *Zwischenstadt*) ter pri tem obravnaval prostorske, gospodarske in zgodovinske značilnosti nove regionalne oblike urbanizacije, ki ni ne mestna ne podeželska (Sieverts, 2003; Charmes, 2015b). Istega leta sta v Franciji Geneviève *Dubois-Taine in* Yves *Chalas* (1997) objavila delo, v katerem sta proučevala pojem nastajajočega mesta (fra. *ville émergente*). Opozorila sta tudi na njegovo dvoumno lastnost (v smislu vmesne stopnje med mestom in podeželjem ter mestom in naravo) in poudarila ključen pomen predmestnih enodružinskih hiš (Charmes, 2015a).

V prvem desetletju 21. stoletja, ob uveljavitvi okoljskih razprav o trajnostni urbanizaciji, so se začele kritike predmestij osredotočati na ključno vlogo predmestij pri nenačrtnem širjenju mest. V delu *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream* Duany idr. (2010) proučujejo glavne urbanistične in arhitekturne značilnosti nenačrtnega širjenja predmestij (npr. stanovanjska naselja in ceste), jih primerjajo s tradicionalnim strnjenim mestnim središčem (njegovo središčno lokacijo, prijaznostjo do pešcev in mešano rabo prostora) in opozarjajo na njihove škodljive vplive na okolje. Podobne kritike so se pojavile tudi v Franciji, kjer so neprimerna raba kmetijskih zemljišč in naravnih območij, obsežna pozidava tal ter odvisnost od avtomobilov in njihova čedalje večja uporaba glavna vprašanja, ki jih proučuje nacionalna organizacija za arhitekturne in urbanistične raziskave in poskuse, znana pod imenom PUCA (2015a, 2015b, 2015c). Druge kritike v Franciji se nanašajo na socialnopolitične značilnosti

predmestnega prebivalstva, pri čemer očitki letijo na pomanjkanje socialne raznolikosti (Donzelot in Epstein, 2009) ali desničarsko usmerjenost teh prebivalcev (Lévy, 2007). Okoljska in socialna vprašanja so vključena v francoske državne zakone, ki jih je vredno podrobneje proučiti.

3 Pravni in urbanistični okvir

Na področju okoljskih vprašanj je cilj zakonov grenelles I (zakon št. 2009-967, sprejet 3. avgusta 2009) in grenelles II (zakon št. 2010-788, sprejet 12. julija 2010) ter še zlasti njunega naslednika, že omenjenega zakona ALUR (št. 2014-366, sprejet 24. marca 2014), s pospeševanjem procesov zgoščevanja gradnje omejiti nenačrtno širjenje mest ter uporabo naravnih in kmetijskih območij. Zaradi urbanističnih politik, sprejetih na podlagi teh zakonov, lokalne oblasti zelo težko določajo nova območja urbanizacije, na lokalni ravni pa je treba obvezno proučiti tudi možnosti zgoščevanja gradnje. Poleg tega omenjene politike spodbujajo delitev zemljiških parcel: prej zahtevano razmerje med velikostjo parcele in njeno pozidavo je zamenjala metoda, ki dovoljuje večji delež zazidljive površine, odpravljena pa je bila tudi pravica občin, da določijo najmanjšo dovoljeno velikost zazidljivih parcel (Ministère du Logement et de l'Égalité des territoires, 2014). Te spremembe se nanašajo zlasti na primestja in predmestja. Kot je bilo že ugotovljeno v številnih obsežnih francoskih raziskovalnih programih, imajo ta velika in redko pozidana območja, ki se razprostirajo okoli mestnih središč ali med njimi in na katerih ima urbano tkivo obliko krpanke – v francoski literaturi se zanje običajno uporabljata izraza *périurbain* (primesten) in *pavillonnaire* (predmesten) –, velik potencial za zgoščevanje gradnje (Hanrot, 2014; Bonnet, 2016).

Značilen primer zakonskega reševanja socialnih vprašanj na urbanističnem področju je razviden iz 55. člena SRU, ki predpisuje, da mora skupni stanovanjski fond v občinah z več kot 3.500 prebivalci (ali več kot 1.500 prebivalci v primeru osrednje francoske regije Île-de-France) vključevati vsaj 20 % socialnih stanovanj. Zakon določa sistem letnih in triletnih kazni, ki se izračunajo in predpisujejo na podlagi primanjkljaja socialnih stanovanj v posamezni občini (zakon št. 2000-1208, sprejet 13. decembra 2000). Zakon iz leta 2013, ki so ga poimenovali po ministrici Cecile Duflot, določa še ostrejše pogoje: v večini primerov zahtevani delež socialnih stanovanj dviga 25 % (nekatere občine so te nove kvote oproščene) in predpisuje še višje kazni (zakon št. 2013-61, sprejet 18. januarja 2013). Od skupno 36.685 francoskih občin jih ima samo 8,5 % več kot 3.500 prebivalcev in zanje se torej uporabljata ta zakona, vendar v njih živi kar 67,6 % celotnega francoskega prebivalstva (INSEE, 2017). Nacionalna raziskava, opravljena leta 2017, je pokazala, da od 1.997 občin, za katere se ta zakona uporabljata, jih kar 1.222 ni izpolnjevalo obveznosti, povezanih s fondom socialnih stanovanj, in je moralo plačati kazni v skupni višini 76,8 milijona evrov. Plačane kazni se nato porabijo za financiranje socialnih stanovanj (Ministère de la Cohésion des Territoires, 2018).

Na podlagi opisanega je mogoče v predmestjih opaziti dve nasprotujoči si stanovanjski dinamiki. Na eni strani je za ta območja značilna dinamika gradnje zasebnih stanovanj na podlagi delitve zemljiških parcel, ki jo pospešuje ALUR, na drugi pa dinamika gradnje socialnih stanovanj, ki jo občinam predpisuje SRU (s kaznimi v primeru premalo teh stanovanj). Dinamiki si nasprotujeta, saj povečanje števila zasebnih bivališč v posamezni občini neposredno zmanjša njen delež socialnih stanovanj. V občinah, ki nimajo dovolj socialnih stanovanj in kjer prevladuje predmestno tkivo, imajo lokalne oblasti manjšo operativno moč od številnih zasebnih lastnikov hiš v predmestjih. Takšne občine se znajdejo v slepi ulici, saj nimajo zemljišč ali znanj, potrebnih za gradnjo dovolj socialnih stanovanj, ki bi izravnala učinek množenja in zgoščevanja zasebnih bivališč. Treba je poudariti, da so običajno parcele kolektivnih socialnih stanovanj, pri gradnji katerih sodelujejo tradicionalni javni akterji s področja zagotavljanja socialnih stanovanj (npr. lastniki socialnih stanovanj), veliko večje od parcel predmestnih hiš. Poleg tega občine, ki še imajo dovolj socialnih stanovanj, a tudi velik delež zemljišč, na katerih se gradnja zgošča (tj. predmestnih sosesk), v prihodnje lahko ne bodo imele več dovolj teh stanovanj, če se ob procesu zgoščevanja gradnje ne bo sprejela tudi politika sistematične gradnje socialnih stanovanj zasebnih predmestnih parcelah. Na eni strani je torej očitna operativna prožnost najrazličnejših akterjev s področja gradnje zasebnih stanovanj (lastnikov in investitorjev), na drugi pa sankcioniranje javnih akterjev s šibko operativno močjo v predmestjih (občinskih uprav in lastnikov socialnih stanovanj). Izvedljivost obeh politik na istem predmestnem območju je zato vprašljiva.

Danes 56 % francoskih prebivalcev živi v samostojni hiši ali dvojčku v predmestju (INSEE, 2016) in za kar 87 % prebivalcev je to idealno bivališče in si zato želijo ali nameravajo živeti v takšni hiši (Damon, 2017). Hkrati je 74 % vseh francoskih gospodinjstev upravičenih do socialnega stanovanja (INSEE, 2009), pri čemer ima štiri milijone prebivalcev neprimerno stanovanje ali je brez njega, približno 12,1 milijona ljudi pa čuti posledice stanovanjske krize (Foundation Abbé Pierre, 2017). Ima lahko priljubljeni model predmestne hiše vlogo pri zagotavljanju socialnih stanovanj? Ali bi bilo mogoče v predmestnem tkivu zgraditi manjša socialna stanovanja na manjših parcelah? Kateri socialnopolitični pojmi se uporabljajo za gradnjo socialnih stanovanj in ali so pomembni tudi za predmestna območja?

4 Gonila gradnje socialnih stanovanj

Člen L.411 francoskega gradbenega in stanovanjskega zakonika (fra. *Code de la Construction et de l'Habitation*) opredeljuje vlogo socialnih stanovanj v Franciji. V skladu s tem členom je cilj gradnje, razvoja, dodeljevanja in upravljanja socialnih najemnih stanovanj izboljšanje stanovanjskih razmer ljudi z majhnimi prihodki. Te dejavnosti so del izvajanja pravice do stanovanja in prispevajo k potrebni socialni raznolikosti mest in sosesk (zakon št. 98-657, sprejet 29. julija 1998). Opisano je navedeno na začetku četrte knjige zakonika z naslovom *Habitations à loyer modéré* (stanovanja za prebivalce z majhnimi dohodki) in jasno opozarja na glavna izziva, povezana s socialnimi stanovanji v današnji Franciji: pravico do stanovanja in socialno raznolikost.

Pravica do stanovanja je bila glavni vzrok za začetek obsežne gradnje socialnih stanovanj v večini evropskih držav po drugi svetovni vojni (Scanlon idr., 2015). Kot temeljna človekova pravica priznana v Splošni deklaraciji o človekovih pravicah, podpisani v Parizu leta 1948, je stanovanje v Zahodni Evropi veljalo za del družbene pogodbe med vlado in državljani, ki je bila podlaga za oblikovanje socialne države (Scanlon idr., 2015: 2). V Franciji je zagotavljanje stanovanj ljudem, ki si jih ne morejo privoščiti, vprašanje, s katerim se vlada nenehno spopada in ga poskuša reševati z najrazličnejšimi zakoni in politikami (Driant, 2015). V devetdesetih letih 20. stoletja so pravna in politična prizadevanja v zvezi s pravico do stanovanja spet prišla v ospredje. Ta pravica je med drugim glavna tema Bessonovega zakona iz leta 1990 (zakona št. 90-449, sprejetega 31. maja 1990), ki je vpeljal nov pristop v urbanistični stanovanjski politiki, ki se osredotoča na socialno ogrožene prebivalce. Vzpostavil je novo kategorijo socialnih stanovanj, za katera lahko najranljivejši prebivalci pridobijo posebna subvencionirana posojila za najem (fra. *Prêt locatif aidé d'intégration*, v nadaljevanju: PLAI), z njim pa so pomemben akter na področju socialnih stanovanj postala državljanska združenja (Driant, 2015; Stébé, 2016).

V istem obdobju se je v uradnem izrazoslovju urbanistične politike pojavil nov izraz: socialna raznolikost (še zlasti s t. i. protigetovskim zakonom, sprejetim 21. decembra 1989, in zakonom o urbani usmeritvi iz leta 1991; Driant, 2015). Razvil se je kot odziv na getoizacijo prebivalcev, ki običajno živijo v socialnih stanovanjskih blokih. Z vidika reševanja socialno-prostorske segregacije prebivalcev in socialnopolitičnih razlik, ki jih povzroča, se socialna raznolikost nanaša na prizadevanje, da bi z boljšo porazdelitvijo socialnih stanovanj po vsej Franciji dosegli bolj raznoliko stanovanjsko ponudbo in posledično socialno bolj raznolike soseske (Lelévrier, 2014; Charmes in Bacqué, 2016c). Opisana raznolikost se nanaša na prihodke, socialni položaj in poklicno sestavo prebivalstva, vključuje pa tudi temeljno etnično, rasno, kulturno in versko raznolikost (Charmes in Bacqué, 2016a). Politika, ki podpira socialno raznolikost, je prostorsko usmerjena, saj je njen cilj združiti različne družbene skupine na enem mestu. Vključuje pristop, ki obsega vse vladne in urbanistične ravni: regije, občine in soseske (Driant, 2015). Njeno izvajanje lahko spremeni deleže določenih skupin prebivalstva v soseski, kar poveča vrednost njenih nepremičnin, prostorska bližina različnih družbenih skupin pa spodbuja socialno integracijo in kohezijo (Lelévrier, 2014).

Raziskovalci opozarjajo na nasprotujoče si posledice dveh temeljnih ciljev socialne stanovanjske politike (pravice do stanovanja in socialne raznolikosti): socialno ogroženi prebivalci običajno živijo v cenejših socialnih stanovanjih, ki so najpogosteje v delavskih soseskah, kar povzroča prav nasprotno od tega, za kar si prizadeva politika socialne raznolikosti (Jaillet, 2011). Pravica do stanovanja ima delni etični vpliv in politično vrednost, ki na ravni EU in Francije nista vprašljiva, socialna raznolikost pa se uporablja samo na francoski državni ravni (Houard, 2011; Scanlon idr., 2015; Dhoquois idr., 2016). O socialni raznolikosti se v francoski literaturi na široko razpravlja, zlasti z vidika načel, na katerih temelji, ter njenih osnovnih ciljev, strategij uporabe in socialnopolitičnih vplivov na državo (Lelévrier, 2014; Driant, 2015; Charmes in Bacqué, 2016c; Stébé, 2016).

5 Socialna raznolikost: sporni pojem

Socialna raznolikost je bila zaradi svoje plastičnosti vedno učinkovit politični pojem (Jaillet, 2011: 351). Kot navajata Charmes in Bacqué (2016a: 12): plastičnost pojma izhaja iz njegove večpomenskosti in različnih možnih interpretacij. Ta večpomenskost spodbuja nekakšno soglasje in upravičuje politike, ki se lahko med sabo močno razlikujejo. Avtorja omenjata politiki, ki se izvajata v imenu socialne raznolikosti, a si hkrati skoraj popolnoma nasprotujeta. Prva se zavzema za to, da bi se kolektivna socialna stanovanja v delavskih soseskah porušila, kar bi omogočilo bolj raznoliko stanovanjsko ponudbo, od česar bi imela korist zlasti gospodinjstva srednjega sloja. Druga politika pa se zavzema za gradnjo socialnih stanovanj v soseskah srednjega in višjega sloja. Gre torej za dve plati istega kovanca. Driant v svojem delu ti politiki ali pristopa podrobneje predstavi na primeru Francije (2015):

- Prva plat kovanca je politika urbane prenove, ki spodbuja procese rušenja in obnove, s katerimi se izboljšata podoba in privlačnost revnejših sosesk, saj se socialna stanovanja nadomestijo s stanovanjsko ponudbo, privlačnejšo za srednji sloj. Kljub temu se številni raziskovalci strinjajo, da prostorska bližina gospodinjstev z različnimi dohod-

ki ne zmanjšuje socialnih razlik (pravzaprav jih lahko še okrepi), vsekakor pa ne odpravlja socialnih, finančnih in političnih neenakosti (Jaillet, 2011 Lelévrier, 2014; Driant, 2015; Giroud, 2016; Stébé, 2016). Ta procesa urbane prenove (rušenje in obnova) se izvajata večinoma na območjih kolektivnih socialnih stanovanj, ki so blizu mestnih središč ali so z njimi vsaj dobro povezana, njun namen pa je povečati privlačnost in vrednost teh območij s ponudbo cenovno dostopnih bivališč, ki ne zahtevajo selitve na obrobje mesta in ponujajo alternativo predmestnim lastniškim hišam (Lelévrier, 2014: 118).

- Druga plat kovanca ni nič drugega kot uvedba minimalne kvote socialnih stanovanj v skupnem stanovanjskem fondu občin (v skladu z razvpitim 55. členom SRU iz leta 2000 in poznejšim zakonom Duflot iz leta 2013). Politika urbane prenove ponuja alternativo primestnim bivališčem, SRU pa je relevanten predvsem za primestna območja. SRU je pomembno vplival na gradnjo socialnih stanovanj v občinah s premajhnim številom tovrstnih stanovanj, saj se je tam njihov delež med letoma 1999 in 2011 povečal za 12,7 % (v primerjavi s šestodstotnim porastom v občinah, kjer teh stanovanj ni primanjkovalo), kar je v praksi pomenilo, da se je število novozgrajenih socialnih stanovanj povečalo s 87.000 v obdobju 2002–2004 na 140.000 v obdobju 2011–2013 (Vie publique, 2014; Ministère de la Cohésion des Territoires, 2015). V regiji Provansa-Alpe-Azurna obala, kjer je skoraj 40 % vseh francoskih občin, v katerih primanjkuje socialnih stanovanj, pa je od leta 2008 opazno, da ima čedalje več občin premalo socialnih stanovanj, kar je posledica rasti števila prebivalcev in s tem povezanega povečanja števila zasebnih bivališč (Boullion in Couartou, 2016). To kaže na pomembno vlogo predmestij v razpravah obravnavane tematike, saj je večina zasebnih bivališč v Franciji prav v predmestjih. Stébé (2016: 115) navaja, da mestna središča običajno izvajajo proaktivno politiko in tako dosegajo še večji delež socialnih stanovanj od zahtevanega, občine z nezadostnim številom socialnih stanovanj pa prevladujejo v primestjih večjih mest in so večinoma sestavljene iz predmestnega tkiva. Nacionalna raziskava izpolnjevanja zahtev iz 55. člena SRU je pokazala, da so leta 2016 najvišje kazni plačale občine Saint-Maur-des-Fossés, Neuilly-sur-Seine, Le Cannet, Sanary-sur-Mer in Grasse (Ministère de la Cohésion ..., 2016). Štiri izmed njih imajo velik delež predmestnega tkiva, peta in edina, ki nima predmestnih lastnosti (Neuilly-sur-Seine), pa je v primestju Pariza (Google Maps, 2017). Ti izsledki še dodatno dokazujejo, da obveznosti, ki jih predpisuje SRU, povzročajo težave predmestnim in primestnim skupnostim.

Še vedno pa ostaja odprto vprašanje: Ali je politična utemeljitev socialne raznolikosti na podlagi 55. člena SRU relevantna tudi za predmestne in primestne skupnosti?

6 Pomen socialne raznolikosti za primestna območja

Primestna območja v Franciji so postala sinonim za predmestno gradnjo, običajno pa nanje letijo očitki zaradi socialno-ekonomske homogenosti, pomanjkanja arhitekturne in urbanistične kakovosti ter monofunkcionalnosti. Njihovi arhitekturna in funkcijska homogenost nista vprašljivi, raziskave številnih avtorjev (npr. Dodierja idr., Lambertove in Charmesa) pa jasno kažejo, da so francoska primestja socialno-ekonomsko in politično raznolika.

Obstaja več vrst primestnih območij, ne samo eno (Charmes idr., 2016: 85), saj ima vsako svoje posebnosti, vključno s prebivalci, ki imajo različne lastnosti in politične usmeritve. Dodier (2007: 35–46) navaja, da so primestja nekoliko manj socialno raznolika od mestnih območij, saj tam živi manj predstavnikov najbogatejšega in najrevnejšega družbenega sloja, hkrati pa opozarja na prisotnost vseh družbenih kategorij v primestjih in predlaga podrobnejšo proučitev geografskih in sociooloških značilnosti predmestnih območij. V posameznem primestnem območju so opazni najrazličnejši življenjski slogi in odnosi, ki jih imajo prebivalci do svoje soseske in mesta; to so vidiki, ki so odvisni od spola, starosti, prometnih povezav itd. (Cailly in Dodier, 2007). Kljub vsem razlikam je mogoče zaznati tudi delno diskriminacijo na podlagi družbenega položaja, narodnosti, etnične pripadnosti, rase itd. (Lambert, 2015). Vse opisane prvine razkrivajo veliko socialno raznolikost primestnih območij in spodbujajo preseganje nasprotij med mestnimi in primestnimi območji. Poudarjajo pomen vztrajnega osredotočanja na kontekst ter zlasti na neenakosti med soseskami in socialne razlike (Sampson, 2016: 35), kar je tudi eden glavnih Sampsonovih nasvetov za izvajanje sociološko-urbanističnih raziskav.

Kot je bilo opisano zgoraj, javna politika, ki spodbuja socialno raznolikost, temelji na prostorskem pristopu. Pri proučevanju periurbanih območij na obrobju francoskih mest Tours in Le Mans je Dodier ugotovil, da so nekatere socialno-ekonomske razlike povezane s prostorskimi razlikami, ki temeljijo na treh glavnih prvinah. Prva je oddaljenost od mestnega središča v koncentričnih krogih. Raziskovalci nenehno ugotavljajo, da se vrednost hiš in zemljišč ter posledično socialno-ekonomski položaj stanovalcev postopno in precej sistematično slabšata z oddaljenostjo od mestnega središča (Cailly in Dodier, 2007;

Dodier, 2007; Jaillet, 2011; Driant, 2015). Druga prostorska prvina je povezana z mestnimi kvadranti (severnim, južnim, vzhodnim in zahodnim), za katere je značilna različna razvojna dinamika, povezana z lastnostmi posameznega ozemlja (npr. kakovostjo krajine, oddaljenostjo od javne infrastrukture in bližino delovnih mest). Tretja prostorska prvina, ki povzroča socialno-ekonomske razlike, pa je razdrobljenost nepremičnin, ki se med primeri razlikuje, odvisna je na primer od velikosti zemljiških parcel in datuma gradnje objektov (Cailly in Dodier, 2007).

S podrobno sociološko-urbanistično analizo in upoštevanjem pomena konteksta pri vsakem proučevanem primeru (Sampson, 2016) se občina in posamezno primestno območje analizirata na podrobnejši ravni – tj. na ravni soseske in *več* primestnih predelov, ki obstajajo na ozemlju, ki se je prej dojemalo kot eno samo homogeno območje. Proučevanje na tako podrobni ravni omogoča boljše razumevanje posamezne soseske na primestnih območjih in določanje prave homogenosti, kjer obstaja. Socialna raznolikost je lahko zato pomemben pojem za predmestja. Zanimivo je, da je bil Sampson tudi član nacionalnega svetovalnega odbora za ambiciozni ameriški socialni poskus, znan kot program *Moving to Opportunity for Fair Housing Demonstration Programme* (Briggs idr., 2010). V devetdesetih letih 20. stoletja so v ZDA v okviru tega programa proučevali vplive sosesk na revna gospodinjstva in tem družinam pomagali, da so se z zelo revnih območij preselile na nekoliko manj revna območja, večinoma v predmestjih (Briggs idr., 2010; Ludwig, 2012). Čeprav so program kritizirali kot politično naivnega (Geronimus in Thompson, 2004), je večina raziskav pokazala, da je imela selitev pozitiven vpliv na stanovanjske razmere (Briggs idr., 2010), izobrazbo, zaposlitev, prestopništvo (Gennetian idr., 2012), finančne koristi (Chetty in Hendren, 2015) in zdravje (Ludwig idr., 2011) revnih družin. Na podlagi opisanega bi lahko urbanistična politika socialne raznolikosti tudi v predmestjih bila učinkovita.

7 Socialna stanovanja kot nosilec socialne raznolikosti v francoskih predmestjih?

Za francoska predmestja velja, da so socialne razmere v prvem koncentričnem krogu velikih mest na splošno bolj specifične, saj tam prevladuje srednji sloj (Dodier, 2007: 35–46), ki se postopno spreminja v višji sloj. Tovrstna primestna območja običajno vključujejo soseske, zgrajene v šestdesetih letih 20. stoletja, ko so popularizacija osebnih vozil in razne urbanistične politike spodbujale razpršeno urbanizacijo (Callen, 2011; Haëntjens, 2011; Magri, 2015). V teh soseskah prevladujejo predmestne enodružinske hiše na velikih parcelah, ki imajo običajno dober dostop do javne infrastrukture (npr. šol in bolnišnic), dobre javne prometne povezave z mestnim središčem (in delovnimi mesti) itd. (Dodier in Cailly, 2008; Desgrandchamps idr., 2010; Petitet, 2013). Opisane značilnosti urbanega tkiva in same lokacije omogočajo ugodne pogoje za procese zgoščevanja gradnje (npr. velike parcele in dobra infrastruktura) in gradnjo socialnih stanovanj (npr. učinkovit javni prevoz in bližina delovnih mest; Desgrandchamps idr., 2010; Petitet, 2013; Touati in Crozy, 2015). Ker je večina prebivalcev teh sosesk pripadnikov srednjega ali višjega sloja, je gradnja socialnih stanovanj v okviru politike socialne raznolikosti etično bolj upravičena, hkrati pa zagotavlja, da ta stanovanja opravljajo tudi svojo drugo temeljno vlogo opredeljeno v francoskem gradbenem in stanovanjskem zakoniku: nudijo bivališče socialno ogroženim gospodinjstvom. Številni kvadranti v prvih koncentričnih krogih primestnih območij bi bili lahko zato učinkovito stičišče predmestnih prvin (in njihovega zgoščevanja) in socialnih stanovanj (in posledično socialne raznolikosti), pri čemer bi se bilo treba stalno izogibati posploševanju. Pri tem je treba upoštevati socialne, ekonomske in politične značilnosti vsake soseske ter lastnosti posameznih kvadrantov, kot so razpršenost nepremičnin, kakovost krajine, velikost parcel in datum gradnje objektov.

Danes so v Franciji primeri uspešne gradnje socialnih stanovanj na zasebnih parcelah. Številna združenja ali mikrolastniki socialnih stanovanj sistematično gradijo manjše razpršene komplekse socialnih stanovanj (od ene do dvanajst enot na kompleks) v okviru zgoščevanja predmestne gradnje (Primard in Touati, 2015). Ta združenja gradijo socialna stanovanja na podlagi PLAI za najranljivejše skupine prebivalcev, med nujnimi pogoji za začetek posameznega projekta pa sta ustrezna lokacija in bližina javne infrastrukture (npr. javnega prevoza, trgovin, šol in delovnih mest). Omenjena združenja delujejo v pravnem okviru Bessonovega zakona (pri čemer imajo korist od potencialne vloge na trgu socialnih stanovanj in gradnje socialnih stanovanj na podlagi PLAI). Socialna stanovanja na podlagi PLAI večinoma že zagotavljajo neko socialno raznolikost v predmestjih, njihovi mikrolastniki pa poleg tega v projekte vključujejo tudi študentska stanovanja, stanovanja za starejše in medgeneracijska stanovanja, ki so v skladu z zakonom SRU priznana kot socialna, če so pomembna za širši mestni prostor ali lokalno stanovanjsko politiko. Socialna raznolikost se spodbuja tudi pri vsakem gradbenem projektu, pri čemer se za stanovalce manjših kolektivnih stanovanjskih kompleksov izbere ljudi različnih starosti in z različnimi dohodki. Ko so Étienna Primarda, soustanovitelja in predsednika enega izmed takšnih združenj, znanega kot *Solidarités nouvelles pour le logement* (Nova stanovanjska solidarnost, v nadaljevanju: SNL), v intervjuju vprašali, katera so najpomembnejša merila za to, da se posamezen projekt začne, je kot prvo merilo izpostavil možnost vključitve sosedov v proces odločanja o projektu (Primard in Touati, 2015).

Prizadevanja za gradnjo socialnih stanovanj v okviru zgoščevanja gradnje na primestnih območjih, kjer živita srednji in višji sloj, običajno naletijo na odpor stanovalcev. Čeprav večina francoskega prebivalstva zamisel socialne raznolikosti dobro sprejema (ELABE, 2016), lokalni prebivalci skoraj nikoli ne odobravajo zgoščevanja gradnje v predmestjih (Desgrandchamps idr., 2010), slab sloves socialnih stanovanj pa trenja samo še zaostruje. Participativni procesi omogočajo razpravo o posameznem gradbenem projektu in njegovo prilagoditev, na podlagi česar se lahko izvede gradnja, hkrati pa se zagotovijo zadovoljive rešitve vsem zainteresiranim akterjem. Tovrstni procesi prispevajo k vzpostavitvi novih strok, praks in spretnosti v mestnem tkivu (Biau idr., 2013). Izsledki Dodierjeve podrobne analize in poglobljene razlage primestnih območij ter Sampsonove raziskave, pri kateri se je osredotočal na kontekst in izhajal iz terenske sociologije, podpirajo obliko državljanske udeležbe, ki daje velik pomen mnenju prebivalcev. Opisani participativni pristopi čedalje bolj postajajo nujne prvine procesov predmestnega zgoščevanja gradnje (Petitet, 2013; Hanrot, 2015). Posveti s stanovalci in njihovo sodelovanje pri odločanju so že postali sestavni del upravljanja socialnih stanovanj (Demoulin, 2013; Dhoquois 2016), Patrick Bouchain (2010, 2016) – arhitekt, ki slovi po uporabi participativnih metod v svojih projektih, pa je v zadnjih letih proučeval možnosti sodelovanja prebivalcev pri zasnovi in gradnji socialnih stanovanj. Tudi pri spornih urbanističnih politikah socialne raznolikosti je ena izmed kritik to, da se pogosto izvajajo brez upoštevanja prebivalcev, v nekaterih primerih pa celo v nasprotju z njihovimi željami (Charmes in Bacqué, 2016b: 99–100). Poleg tega se pogosto izpostavlja možnost uvedbe participativne politike socialne raznolikosti, pri kateri bi se uporabljali postopki, ki spoštujejo obstoječe prebivalce in ustvarjajo prave socialne vezi med obstoječimi in novimi prebivalci (Lelévrier, 2014; Charmes in Bacqué, 2016c).

Pomembno je, da se pri urbanističnih projektih ne prikriva kompleksnost participativnih procesov in da se ti procesi ne dojemajo kot čudežno zdravilo za vse urbanistične težave. V tridesetih letih delovanja na tem zapletenem in konfliktnem področju združenje SNL ni imelo niti enega primera, v katerem bi prebivalci preprečili izdajo gradbenega dovoljenja (Touati, 2014), zato bi bil model njegovega delovanja lahko vsaj vir navdiha. S projekti, ki so dobro sprejeti pri lokalnih oblasteh (ker pomagajo zniževati kazni, povezane s SRU) in pri lokalnih prebivalcih (ker so o njih dobro obveščeni in lahko vplivajo na končni rezultat s sodelovanjem pri odločanju, pri čemer končni rezultat vedno ostane na ravni predmestne arhitekture), je model združenja SNL primer dobre prakse. Ključno je, da se iz njega učimo, zlasti tako, da upoštevamo Primardov nasvet glede posvetovanja s prebivalci in njihovega vključevanja v odločanje na vseh načrtovalskih ravneh – tj. na regionalni ravni (pri čemer prebivalci sodelujejo pri oblikovanju regionalnih načrtovalskih dokumentov, kot je SCoT ali PLH v primeru Francije) ter na ravni občin in njihovih sosesk (pri čemer prebivalci sodelujejo pri oblikovanju dokumentov, kot so lokalni urbanistični načrti; Primard in Touati, 2015). Hkrati se je pomembno zavedati tudi njegovih šibkih točk:

- tovrstna združenja temeljijo na neki politični angažiranosti svojih ustanoviteljev, povezani s pravico do stanovanja njihovih sodržavljanov, večino osebja teh združenj pa sestavljajo prostovoljci (SNL ima 70 zaposlenih in 1.127 prostovoljcev; SNL-Union, 2017);
- opisani način zagotavljanja socialnih stanovanj v okviru procesov zgoščevanja predmestne gradnje bo še naprej imel obroben pomen, če ne bo upošteval finančnih interesov zasebnih lastnikov (ki imajo v lasti veliko večino predmestnih zemljišč).

Za popularizacijo tovrstne urbanistične politike in sistematično zagotavljanje razpršene gradnje socialnih stanovanj v predmestjih je treba upoštevati, da se gradnja večinoma zgošča na zasebnih predmestnih parcelah na pobudo zasebnih lastnikov, ki bi morali za to prejeti ustrezno finančno nadomestilo.

8 Sklep

Poleg posameznih združenj se za problematiko, obravnavano v tem članku, zanimajo tudi drugi akterji, ki bi jih bilo treba spodbuditi k sodelovanju in iskanju rešitev. Najprej so to občine, ki se želijo izogniti kaznim, ki jih trenutno plačujejo zaradi neizpolnjevanja zahtev zakona SRU pri zagotavljanju stanovanj z zgoščevanjem predmestne gradnje. Poleg tega je treba k sodelovanju spodbuditi tudi tradicionalne akterje s področja zagotavljanja socialnih stanovanj (lastnike takih stanovanj), ki v zadnjem desetletju kažejo čedalje večje zanimanje za manjše projekte, 95 % zgrajenih socialnih stanovanj je manjših kolektivnih stanovanjskih kompleksov, začasnih bivališč ali samostojnih hiš (Stébé, 2016). Njihovo sodelovanje z zasebnimi investitorji in gradbeniki postaja čedalje pogostejše in zato tudi preprostejše (Dhoquois, 2016). Poleg tega so se začeli ukvarjati tudi s projekti urbane prenove, ki vključujejo javne površine, trgovine in druge prostore (Couartou, 2016). Ob angažiranosti teh lastnikov socialnih stanovanj ali urbanistov v predmestjih bi ta območja začela postajati urbanistično, arhitekturno in funkcijsko bolj raznolika.

Čeprav je socialna raznolikost sporen pojem, je lahko v nekaterih kontekstih koristen cilj urbanistične politike. V nasprotju s splošnim prepričanjem so francoska predmestja socialno precej raznolika, podrobnejša analiza primestnih območij, ki se je osredotočala na kontekst posameznega primera, pa je pokazala, da obstajajo predeli, kjer bi bila lahko politika socialne raznolikosti učinkovita. Mednarodni primeri so spodbudna podlaga

za tovrstno preizkušanje v povezavi s socialno raznolikostjo, pri čemer bi se preizkušanje osredotočalo na predmestno tkivo v prvem primestnem koncentričnem krogu.

Zgoraj opisani akterji (občine in tradicionalni lastniki socialnih stanovanj) bi lahko primere mikrolastnikov socialnih stanovanj, kot je združenje SNL, uporabljali kot učinkovite modele delovanja. Model združenja SNL dokazuje, da lahko na podlagi sodelovanja med prebivalci, občinami in lastniki socialnih stanovanj ter uporabe zasebnih bivališč za socialna stanovanja participativni procesi pomagajo odpraviti nasprotja med dinamiko zasebnih in socialnih stanovanj. Trenutno ni ustrezne zakonske podlage, ki bi jasno in preprosto omogočala sodelovanje prebivalcev, občin in lastnikov socialnih stanovanj (mikrolastnikov, tradicionalnih lastnikov ali lastnikov – urbanistov) pri gradnji. Poleg tega je treba temeljito razmisliti tudi o rešitvah, ki bi bile finančno privlačnejše za več vpletenih akterjev. Treba je oblikovati urbanistične, arhitekturne in krajinske predloge, ki ustrezajo okoljskemu cilju zgoščevanja gradnje in socialnemu cilju zagotavljanja socialnih stanovanj. Razmišljanja morajo upoštevati vse ravni, od ravni EU in njenih politik, do nacionalnih, regionalnih, občinskih ravni in ravni sosesk ter ne nazadnje ravni stanovalcev in njihovih zasebnih parcel. Predloge je treba oblikovati s participativnimi postopki, s katerimi se zagotovijo socialno, politično, finančno in arhitekturno izvedljive rešitve, ki so hkrati dolgotrajne in omogočajo trajnostni razvoj prihodnjih primestnih območij.

Ion Maleas
Marseilles School of Architecture, Marseille, Francija
E-naslov: ionmaleas@gmail.com

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Blaž KRIŽNIK

Preobrazba degradiranih urbanih območij in družbena vzdržnost: primerjalna študija urbane regeneracije in urbane prenove v Barceloni in Seulu

Preobrazba degradiranih urbanih območij je pomembna za krepitev družbene vzdržnosti v lokalnih okoljih, poleg tega je ključna za privabljanje novih naložb v mesta. Toda pri špekulativnem urbanem razvoju se pogosto prezre družbeni pomen lokalnih okolij, ki se dojemajo le kot ekonomske dobrine, ki jim je mogoče odvzeti zgodovinske, družbene in simbolne pomene ter jih pretvoriti v tržno blago. V članku avtor proučuje nekoliko protislovno vlogo preobrazbe degradiranih območij v mestih, pri čemer primerja Barcelono in Seul, mesti s precej različnimi zgodovinskimi, kulturnimi in institucionalnimi značilnostmi. Območje dejavnosti 22@ v Poblenouju in Novo sosesko Wangsimni v Seulu obravnava kot študiji primera, s katerima poskuša ugotoviti, kako se urbana regeneracija in prenova umeščata v posamezno lokalno okolje in katere posledice imata za družbeno vzdržnost. Čeprav se primera razlikujeta glede na načrtovalski pristop, deležnike in institucionalni okvir, izsledki kažejo, da so posledice za družbeno vzdržnost pri obeh podobne. V članku avtor ugotavlja, da sta bila oslabljena družbena kohezija in premajhno sodelovanje javnosti posledica špekulativnega urbanega razvoja, pri čemer sta se urbana regeneracija in prenova uporabili za privabljanje naložb, krepitev gospodarske konkurenčnosti in izboljšanje globalne privlačnosti mesta, namesto za reševanje raznovrstnih lokalnih vprašanj.

Ključne besede: sodelovanje javnosti, družbena kohezija, družbena vzdržnost, urbana prenova, urbana regeneracija

1 Uvod

Mesta tekmujejo pri privabljanju naložb, ustvarjanju delovnih mest, organiziranju dogodkov in privabljanju turistov, s čimer naj bi se okrepila njihova gospodarska rast in urbani razvoj ter izboljšala kakovost življenja. Toda zelo malo dokazov kaže, da takšno tekmovanje prinaša enake koristi za vse. Nasprotno, koristi so pogosto neenakomerno razporejene med družbenimi skupinami v mestu (Brenner idr., 2012; Harvey, 2012). Poleg tega naj bi tekmovalna urbana politika, ki daje prednost pretvorbi javnega prostora v tržno blago, privatizaciji javnih dobrin in storitev, deregulaciji urbanističnega načrtovanja in gradnji ikoničnih projektov skupaj s trženjem mesta, povzročala degradacijo okolja, družbene in gospodarske neenakosti ter kršenje državljanskih pravic (Short, 2004; Mayer, 2007). Tovrsten tržno usmerjeni urbani razvoj obravnava lokalna okolja le kot ekonomske dobrine, ki jim je mogoče odvzeti zgodovinske, družbene in simbolne pomene ter jih pretvoriti v tržno blago (Balibrea, 2001; Short, 2004; Križnik, 2011). Preobrazba degradiranih urbanih območij je zato postala ključna za privabljanje novih naložb v mesta (Smith, 2002; Shin in Kim, 2016), prenova teh območij pa je pomembna tudi za krepitev družbene razsežnosti trajnostnega razvoja mest (Manzi idr., 2010; Colantonio in Dixon, 2011; Ho idr., 2012).

Avtor v članku proučuje nekoliko protislovno vlogo preobrazbe degradiranih urbanih območij v mestih, pri čemer primerja Barcelono in Seul, mesti s precej različnimi zgodovinskimi, kulturnimi in institucionalnimi značilnostmi. Predhodne raziskave kažejo, da se je kljub tem razlikam preobrazba urbanih območij, ki sta jih mestni upravi Barcelone in Seula obravnavali kot nerazvita, pogosto izkoriščala za privabljanje naložb, krepitev gospodarske konkurenčnosti in izboljšanje splošne privlačnosti Barcelone (Marshall, 2000; Balibrea, 2001; Arbaci in Tapada-Berteli, 2012; Dot Jutgla idr., 2012; Charnock idr., 2014) in Seula (Cho, 2008; Kim, 2010; Križnik, 2011; Shin in Kim, 2016). To se je javno upravičevalo kot strateško pomembno za mesto in domnevno koristno za vse prebivalce (Ajuntament de Barcelona, 2000, 2012; SMG, 2005, 2010). Podobnosti v izkoriščanju in upravičevanju tovrstne preobrazbe mest so izhodišče za primerjavo preobrazbe degradiranih urbanih območij v Barceloni in Seulu ter njenih posledic za družbeno vzdržnost lokalnega okolja.

Čeprav je urbani razvoj v Barceloni in Seulu pogosto predmet raziskav, je bil redko obravnavan s primerjalnega vidika (izjeme vključujejo raziskave, ki so jih opravili Uršič in Križnik, 2012; Colantonio idr., 2014; Križnik, 2014). Članek se začne z razpravo o odnosu med urbanim razvojem in družbeno vzdržnostjo, na podlagi česar avtor vzpostavi okvir za vrednotenje posledic urbanega razvoja za družbeno vzdržnost lokalnega okolja. Nato primerja Barcelono in Seul glede na njun položaj v svetovnem in nacionalnem omrežju mest ter njune načrtovalske pristope in institucionalne okvire. Območje dejavnosti 22@ (Activity District 22@, krajše 22@) v Poblenouju in Nova soseska Wangsimni (Wangsimni New Town ali WNT) v Seulu sta obravnavana kot poglobljeni študiji primerov urbane regeneracije v Barceloni oziroma urbane prenove v Seulu z vidika načrtovalskega pristopa, deležnikov in posledic za družbeno vzdržnost.[1] Članek se konča s povzetkom rezultatov, sklepom in predstavitvijo omejitev raziskave.

2 Urbani razvoj in družbena vzdržnost

Trajnostni urbani razvoj je navadno obravnavan v smislu trojnosti, v skladu s katero naj bi bila trajnostna gospodarska rast mest uravnotežena z varovanjem okolja in družbeno enakostjo (Mayer in Knox, 2006: 324). Uravnoteženje gospodarstva, okolja in družbene enakosti zahteva pogajanja med deležniki, kar kaže, da vsebuje trajnostni urbani razvoj tudi politično razsežnost. V preteklosti se je trajnostni urbani razvoj nanašal le na gospodarsko in okoljsko razsežnost, zdaj pa je široko uveljavljen večrazsežnostni pristop, ki priznava pomen družbene vzdržnosti za dolgoročen trajnostni urbani razvoj (Dempsey idr., 2011; Dujon idr., 2013). Eden od razlogov za razmeroma malo pozornosti, ki je je bila v preteklosti deležna družbena vzdržnost, je povezan z nezadostnim razumevanjem odnosa med družbeno vzdržnostjo in urbanim razvojem. Drug razlog so pogosto neoprijemljive družbene posledice urbanega razvoja, ki prej ali slej povzročijo težave pri izvajanju in vrednotenju urbane politike, ki spodbuja družbeno vzdržnost.

Colantonio in Dixon (2001: 24) trdita, da je treba družbeno vzdržnost obravnavati v smislu tradicionalnih področij in načel socialne politike, kot sta enakost in zdravje, ter porajajočih se vprašanj, povezanih s sodelovanjem javnosti, potrebami, socialnim kapitalom, gospodarstvom, okoljem in v zadnjem času tudi s pojmi sreče, dobrega počutja in kakovosti življenja. Urbana politika, katere namen je okrepiti družbeno vzdržnost, bi morala po njunem mnenju izboljšati kakovost vsakdanjega življenja, spodbujati enake možnosti za družbene skupine z različnim ekonomskim, socialnim in kulturnim ozadjem, spodbujati družbeno vključenost z reševanjem ekonomske, socialne in politične izključenosti, vzdrževati obstoječe družbene in kulturne strukture v lokalnih okoljih, spodbujati sodelovanje javnosti v procesih odločanja in podpirati samoupravljanje lokalnih okolij. Zato je za krepitev družbene vzdržnosti v mestih potrebno povezovanje najrazličnejših politik, vključno s tistimi, ki se osredotočajo na gospodarstvo, socialno varstvo, izobraževanje, okolje in urbanizem (Dempsey idr., 2011).

Načrtovalski pristopi, namenjeni preobrazbi degradiranih urbanih območij, kot sta urbana prenova in urbana regeneracija, so pomembna orodja za reševanje vprašanja družbene vzdržnosti v mestih (Williams in Dair, 2007; Manzi idr., 2010; Colantonio in Dixon, 2011; Ho idr., 2012). Poleg zagotavljanja cenovno dostopnih stanovanj, javnih storitev in infrastrukture lahko preobrazba teh območij ublaži družbene neenakosti in krepi družbeno vključenost v lokalnih okoljih z ustvarjanjem vključujočih prostorov, kjer se lahko srečujejo družbene skupine z različnimi ozadji ter se lahko ustvarjajo in poustvarjajo skupnostno življenje in skupne identitete (Forrest in Kearns, 2001). Urbana prenova (ang. *urban redevelopment*) se osredotoča na fizično izboljšanje in spreminjanje podobe degradiranih urbanih območij, ki se delno ali popolnoma porušijo in nadomestijo z novogradnjami. To pogosto vodi v množično razseljevanje prebivalcev in razpad njihovih socialnih mrež. Nasprotno je namen urbane regeneracije (ang. *urban regeneration*) gospodarska, družbena, okoljska in fizična preobrazba degradiranih urbanih območij, pri čemer se novi objekti in storitve povežejo z obstoječim družbenim in urbanim tkivom (Cho in Križnik, 2017; Roberts idr., 2017). Ho idr. (2012: 127) menijo, da je takšen postopni in celostni pristop primernejši za krepitev trajnosti grajenega okolja.

Sodelovanje javnosti je splošno prepoznano kot ključno za krepitev družbene vzdržnosti (Irvin in Stansbury, 2004; Dempsey at el., 2011). Prispeva k boljšemu zavedanju deležnikov o različnih interesih, težavah in priložnostih v lokalnih okoljih ter k učenju skupnega reševanja teh izzivov. Tako se lahko izboljša kakovost načrtovanja, upravičijo sprejete odločitve in prebivalce spodbudi, da prostore, ki se preobrazijo z njihovim sodelovanjem, aktivno uporabljajo in jih vzamejo za svoje (Cerar, 2014). Cho in Križnik (2017: 151) prepoznavata nujnost gradnje trdnega partnerstva med državo in civilno družbo kot pomemben korak k uspešnemu urbanemu razvoju, ki temelji na skupnosti, in močnejši družbeni vzdržnosti v mestih. Načrtovalski pristopi, katerih namen je okrepiti družbeno vzdržnost, po njunem mnenju spodbujajo aktivno vključevanje prebivalcev v procese odločanja in prispevajo k družbeno bolj povezanim lokalnim okoljem. Značilnosti takih lokalnih okolij so majhna družbena neenakost, močne socialne vezi in zaupanje ter dobro vzpostavljena komunikacija in sodelovanje med prebivalci in javnimi ustanovami (Larsen, 2013). Preobrazba degradiranih urbanih območij lahko tako izboljša družbene odnose, zaupanje in solidarnost med različnimi deležniki ter zaupanje v javne ustanove, za kar Manzi idr. (2010: 18) trdijo, da so ključni pojmi in vodilna načela družbene vzdržnosti v lokalnih okoljih.

Številna mesta, kjer so prebivalci izključeni iz procesov odločanja, se spopadajo s težavami pri vzdrževanju družbene in teritorialne kohezije (Brenner idr., 2012). Harvey (1989: 13) trdi, da ti problemi izvirajo predvsem iz urbanega podjetništva in uničujočega tekmovanja med mesti. Urbani razvoj namreč postaja vse bolj špekulativen in pomemben predvsem za mobilizacijo nepremičninskih trgov v mestih kot sredstev za kopičenje kapitala (Smith, 2002: 446). Mesta z razmeroma obrobnim položajem v svetovnem omrežju mest so navadno izpostavljena močnejšim pritiskom glede kopičenja kapitala kot vodilna središča (Gugler, 2004; Short, 2004; Harvey, 2012). Taylor (2004) jih imenuje mesta, ki si želijo postati globalna mesta (ang. *wannabe global cities*), s čimer izpostavlja njihovo željo po spremembi vzpostavljenih odnosov v svetovnem omrežju mest. Tekmovanje med mesti in posledični špekulativni urbani razvoj lahko negativno vplivata ne le na družbeno vzdržnost lokalnih okolij, temveč tudi na dolgoročno sposobnost mesta, da se učinkovito spoprijema z družbenimi, gospodarskimi in okoljskimi izzivi (Wolfram, 2018).

3 Metodologija

Sassnova (2001: 348) pojasnjuje, da v nasprotju s klasičnim primerjalnim pristopom primerjanje mest v svetovnem omrežju mest zahteva novo metodologijo; takšno, ki ne temelji na poenotenju študij primerov, temveč poskuša slediti danemu sistemu ali dinamiki in njunim značilnim pojavnim oblikam v številnih državah. V tem članku avtor upošteva njen predlog ter primerja Barcelono in Seul, da bi bolje razumel posledice špekulativnega urbanega razvoja za družbeno vzdržnost. Obe mesti sta v preteklosti zasedali podoben položaj v svetovnem in lastnem nacionalnem omrežju mest. Predhodne raziskave kažejo, da je to vplivalo na preobrazbo degradiranih urbanih območij, ki so jo izkoristili predvsem za privabljanje naložb, krepitev gospodarske konkurenčnosti in izboljšanje globalne privlačnosti Barcelone in Seula (Marshall, 2000; Balibrea, 2001; Cho, 2008; Kim, 2010; Križnik, 2011; Arbaci in Tapada-Berteli, 2012; Dot Jutgla idr., 2012; Charnock idr., 2014; Shin in Kim, 2016). To se je v javnosti v glavnem upravičevalo kot strateško pomembno za mesto in domnevno koristno za vse prebivalce (Ajuntament de Barcelona, 2000, 2012; SMG, 2005, 2010).

Podobno izkoriščanje in upravičevanje urbanega razvoja v obeh obravnavanih mestih v povezavi z njunim položajem v svetovnem in lastnem nacionalnem omrežju mest ponujata metodološko izhodišče za medkulturno primerjavo preobrazbe degradiranih območij v Barceloni in Seulu. Čeprav sta bili obe mesti že obravnavani primerjalno, so se predhodne študije osredotočale na vpliv medmestnega tekmovanja na upravljanje mesta (Uršič in Križnik, 2012), pomen večnivojskega upravljanja mesta za njegovo gospodarsko prožnost (Colantonio idr., 2014) ali na odzive prebivalcev na globalizacijo Barcelone in Seula (Križnik, 2014). V teh študijah je bilo manj pozornosti

namenjene vplivu urbanega razvoja na družbeno vzdržnost, ki je sicer prepoznana kot eden največjih prihodnjih izzivov mest (Dempsey idr., 2011; Wolfram, 2018). V tem članku zato avtor območji 22@ v Barceloni in WNT v Seulu proučuje kot poglobljeni študiji primera urbanega razvoja, da bi ugotovil, kako se načrtovalski pristopi umeščajo v posamezno lokalno okolje in katere posledice imajo za družbeno vzdržnost. Vrednotenje te vzdržnosti se osredotoča na družbeno kohezijo in na vključevanje prebivalcev v procese odločanja, ki sta prepoznana kot ključni načeli družbene vzdržnosti (Forrest in Kearns, 2001; Irvin in Stansbury, 2004; Manzi idr., 2010; Cho in Križnik, 2017).

Terenska raziskava je zajemala številne obiske Poblenouja in Wangsimnija med letoma 2006 in 2012, ki so bili namenjeni opazovanju družbene in urbane preobrazbe teh dveh območij. V tem obdobju so bili izvedeni polstrukturirani intervjuji z 12 intervjuvanci iz Barcelone in 16 iz Seula, pri čemer je vsak izmed njih pripadal eni od petih glavnih skupin deležnikov.[2] Dve anketi, ki sta vključevali 148 vprašanih iz Poblenouja oziroma 95 iz Wangsimnija, sta bili izvedeni v letih 2006 in 2007, da se primerjajo posledice preobrazbe obeh lokalnih okolij za vsakdanje življenje. Anketi sta temeljili na neverjetnostnem kvotnem vzorčenju, pri katerem so bili anketiranci izbrani glede na spol, starost, kraj rojstva, izobrazbo in lastništvo stanovanja.[3] Ker ta metoda ne omogoča posplošitve rezultatov ankete na celotno populacijo, sta bili anketi dopolnjeni s poglobljenimi intervjuji in obsežno analizo sekundarnih virov. Ti so med drugim vključevali dokumente in poročila mestnih uprav, raziskave, povezane z urbanistično politiko in prostorskim načrtovanjem, in razne zgodovinske zapise o Poblenouju in Wangsimniju. O izsledkih raziskave je bil opravljen tudi posvet s strokovnjaki na terenu v obeh mestih, s čimer se je avtor izognil kulturni pristranskosti pri razumevanju in vrednotenju podatkov, kar velja za glavno težavo medkulturnih primerjalnih študij (Hantrais in Mangen, 1996).

4 Študija primera: Barcelona in Seul

4.1 Institucionalni okvir urbanega razvoja Barcelone in Seula

Barcelona in Seul sta prestolnici Katalonije oziroma Južne Koreje. Obe mesti sta v svetovnem omrežju mest zasedali podoben položaj, ki ga je Gugler (2004) opisal kot sekundarno svetovno mesto. Taylor (2004) je Barcelono in Seul na podlagi analize naprednih storitvenih dejavnosti podobno uvrstil na 32. oziroma 41. mesto glede na njun položaj v svetovnem omrežju mest. Tudi drugi avtorji so v preteklosti prepoznali razmeroma obroben položaj Barcelone in Seula v svetovnem omrežju mest (Beaverstock idr., 1999; Alderson idr., 2010; Csomós in Derudder, 2013). V nasprotju z vodilnimi središči, kot so New York, London ali Tokio, ki jih je Sassnova (2001: 3) označila za poveljevalne točke v organizaciji svetovnega gospodarstva, pomen Barcelone in Seula v svetovnem omrežju mest izhaja iz njune vloge pri povezovanju nacionalnega gospodarstva s svetovnimi trgi. Barcelona je primer tega, čemur Taylor (2004) pravi »inner wannabe city«. Zadnjih dvajset let je bil strateški cilj mestne uprave izzvati vodilni položaj Madrida v nacionalnem omrežju mest z razvijanjem panog, ki temeljijo na inovacijah, znanju in ustvarjalnosti, ter z izboljšanjem komunikacijske, logistične in prometne infrastrukture (Ajuntament de Barcelona, 2012). Mesto si je pri tem prizadevalo izboljšati svoj položaj ne samo v odnosu do Madrida, temveč tudi do drugih evropskih in še posebno sredozemskih mest (Monclús, 2003; OECD, 2009). Seul pa je primer mesta, ki ga Taylor imenuje »outer wannabe city«, saj je s spodbujanjem naprednih storitvenih dejavnosti in panog, ki temeljijo na znanju in kulturi, poskušal tekmovati s Tokiem, Hongkongom in Pekingom (Taylor, 2004). Čeprav ima Seul visoko razvito komunikacijsko in prometno infrastrukturo, ostaja izboljšanje kakovosti življenja glavni strateški cilj mestne uprave (OECD, 2005; SMG, 2013).

V tem smislu sta se obe mesti v zadnjih desetih letih uspešno spremenili iz nacionalnih industrijskih prestolnic v pomembni postindustrijski globalni mesti. Še zlasti Seulu je uspelo močno okrepiti svojo globalno poveljevalno in nadzorno funkcijo, Barcelona pa ohranja svoje konkurenčne prednosti kljub zmanjševanju pomena evropskih mest na splošno (Csomós in Derudder, 2013: 346). Globalizacija je tako okrepila njuno vlogo nacionalnih gospodarskih, družbenih, kulturnih in političnih središč, kar je privedlo do še večje koncentracije prebivalstva ter finančne in politične moči. Leta 2014 je približno 63 % prebivalcev Katalonije živelo v barcelonski metropolitanski regiji, približno 48 % Južnokorejcev pa je živelo v regiji nacionalne prestolnice Seul (Ajuntament de Barcelona, 2015; SMG, 2015a). Barcelona ni samo prestolnica Katalonije, je tudi drugo največje špansko mesto in rivalstvo z Madridom je vedno močno vplivalo na njen urbani razvoj (Monclús, 2003). Obe mesti ostajata privlačni za velike naložbe, panoge, ki temeljijo na znanju in kulturi, napredne storitvene dejavnosti, nova delovna mesta ter ključne raziskovalne, razvojne in izobraževalne ustanove v Kataloniji in Južni Koreji, čeprav se je v tem pogledu tudi pomen metropolitanskih regij v zadnjem času povečal (Choe, 2005; OECD, 2005, 2009).

Ta posebni položaj Barcelone in Seula v svetovnem in lastnem nacionalnem omrežju mest vpliva tudi na preobrazbo degradiranih urbanih območij ter postaja čedalje bolj ključen za privabljanje naložb v obe mesti (Charnock idr., 2014; Shin in Kim, 2016). Preobrazba degradiranih urbanih območij v Barceloni sega v pozno 19. stoletje, ko so bili precej spremenjeni večji deli mestnega središča. V skladu s to tradicijo je mestna uprava v osemdesetih letih 20. stoletja uvedla inovativni na-

črtovalski pristop, katerega cilj je bil izvesti program prenove v celotnem središču mesta in se spoprijeti z njegovo degradacijo z edinstveno in celostno vizijo (Arbaci in Tapada-Berteli, 2012: 292). Ta načrtovalski pristop so po osemdesetih letih 20. stoletja razširili tudi na obrobna območja (Esteban, 2004). Uspešna preobrazba degradiranih urbanih območij je postala splošno prepoznana kot ključen del t. i. barcelonskega modela urbanega razvoja (Monclús, 2003), za katerega je značilna obsežna urbana regeneracija nekdanjih industrijskih zemljišč, ki se pretvorijo v strnjena mestna območja mešane rabe. To preobrazbo omogočajo javne naložbe v javne storitve in prometno infrastrukturo, razpoložljiv visokokakovostni javni prostor in trdna partnerstva med različnimi deležniki (Marshall, 2000; Balibrea, 2001). Med krepitvijo špekulativnega urbanega razvoja v prvem desetletju 21. stoletja so se ta partnerstva spoprijela z velikimi izzivi, zaradi česar so nekateri avtorji pisali o propadu barcelonskega modela (Delgado, 2004; Degen in García, 2012).

V nasprotju z Barcelono je mestna uprava v Seulu bolj spodbujala urbano prenovo kot pa urbano regeneracijo degradiranih mestnih območij.[4] Od konca sedemdesetih let 20. stoletja je bilo množično rušenje revnih četrti pod vplivom zasebnih naložb ključna značilnost politike urbane prenove v Seulu. Rušenju je navadno sledila prisilna razselitev prebivalcev, ki so morali odstopiti prostor špekulativnim projektom urbane prenove (Kim in Yoon, 2003: 587). Tako je bilo prenovljeno skoraj celotno središče Seula. Zaradi neuspešnega reševanja čedalje večjih družbenih, gospodarskih in okoljskih vprašanj pa je v zadnjem desetletju mestna uprava začela razmišljati o drugačnem načrtovalskem pristopu in se je prenove degradiranih urbanih območij lotila na bolj celosten in vključujoč način (Cho, 2008; Kang, 2012; Križnik, 2013). Urbana regeneracija, ki temelji na lokalni skupnosti in katere cilj je vključiti prebivalce v načrtovanje in prenovo sosesk, je po letu 2008 postala sestavni del urbanega razvoja Seula (SMG, 2013, 2015b).

Še ena pomembna razlika med Barcelono in Seulom, povezana s preobrazbo degradiranih urbanih območij, se nanaša na institucionalni okvir odločanja, še zlasti, ko gre za odnos med javnimi ustanovami in civilno družbo. Lokalna demokracija se je v Barceloni razvijala skupaj z demokratizacijo katalonske in španske družbe v sedemdesetih letih 20. stoletja in prve demokratične lokalne volitve so bile leta 1979. V Južni Koreji pa se je lokalna demokracija začela razvijati šele po splošni demokratizaciji družbe, tako da so bile prve demokratične lokalne volitve organizirane šele leta 1995. Vključevanje javnosti, pri katerem javni in zasebni deležniki v procesih odločanja enakopravno sodelujejo z mestno upravo, ima zato v Barceloni daljšo tradicijo kot v Seulu. Zlasti sosedska združenja so imela pomembno vlogo pri preobrazbi barcelonskih degradiranih urbanih območij od sedemdesetih let 20. stoletja, saj so delovala kot široke koalicije lokalnega prebivalstva, ki so zastopale raznolike lokalne interese (Marshall, 2000; Esteban, 2004). Nasprotno so pri urbanem razvoju Seula lahko sodelovali samo lastniki nepremičnin, in sicer prek t. i. združenj za prenovo, ki pa so jih v praksi nadzirale gradbene korporacije z aktivno podporo mestne uprave (Kim, 2013; Shin in Kim, 2016). Zato je v Seulu pred letom 2008 težko govoriti o institucionaliziranem vključevanju javnosti v preobrazbo degradiranih urbanih območij (Park, 2006; Cho in Križnik, 2017).

4.2 Barcelona: Območje dejavnosti 22@ v Poblenouju

Območje dejavnosti 22@, uvedeno leta 2000, je eden največjih projektov urbane regeneracije v Barceloni v zadnjih desetletjih. Osredotoča se na preobrazbo nekdanjega industrijskega območja v industrijskem središču Barcelone v strnjeno sosesko mešane rabe, kjer naj bi t. i. strateške panoge – IKT, medicinska tehnologija, biotehnologija, energetika ter mediji in oblikovanje – nadomestile tradicionalno industrijo. Načrt naj bi torej spodbujal gospodarsko rast, izboljšal gospodarsko konkurenčnost in omogočil preobrazbo Barcelone v konkurenčno globalno mesto. Območje Poblenouja je bilo za to daljnosežno preobrazbo izbrano zaradi bližine mestnemu središču, majhne gostote pozidave, razpoložljivosti praznih ali neizkoriščenih zemljišč, dostopnosti, slabo razvitega lokalnega gospodarstva, navidezno nazadujočih socialnih razmer in svoje dolge zgodovine industrializacije (Ajuntament de Barcelona, 2000, 2012; Oliva, 2003).

Industrializacija Poblenouja sega v sredino 19. stoletja, ko so se na tem območju zaradi dobrih prometnih in prostorskih razmer za industrijski razvoj ustanovile velike tekstilne tovarne in obrati strojne industrije. Hkrati s tovarnami je bilo v tem času zgrajenih tudi veliko delavskih sosesk. Poblenou je postal znan kot »katalonski Manchester«, ne samo zaradi svoje značilne industrijske krajine, temveč tudi posebnega načina življenja in lokalne kulture, ki so ju zaznamovali slabe ekonomske razmere, slaba kakovost življenja, nerazvite javne storitve ter močna solidarnost delavskega razreda in družbeni aktivizem (Arxiu Històric del Poblenou, 2001). Družbene in ekonomske razmere so se še poslabšale po šestdesetih letih 20. stoletja, po množični deindustrializaciji območja in preselitvi glavnih tovarn iz mesta. Med letoma 1970 in 2001 je približno četrtina prebivalcev zapustila Poblenou zaradi slabih bivalnih razmer in brezposelnosti (preglednica 1).

Izboljšanje kakovosti življenja v Poblenouju je bil zato poleg gospodarske konkurenčnosti Barcelone še en pomemben cilj 22@. V tem smislu naj bi urbana regeneracija spremenila območje v strnjeno sosesko z mešano rabo, novimi stanovanji, zelenimi površinami, javnimi storitvami in infrastrukturo, ob

Preglednica 1: Rast števila prebivalcev v Poblenouju

	1970	1981	1986	1991	1996	2001	2006	2011
prebivalstvo	64.493	61.403	57.328	58.021	55.945	58.035	69.396	77.393
rast		–5 %	–7 %	1 %	–4 %	4 %	28 %	4 %

Vir: Ajuntament de Barcelona, 2015

Slika 1: Na območju dejavnosti 22@ naj bi se obstoječa soseska združila z novimi objekti in storitvami (foto: Barcelona Activa, mestni svet Barcelone)

tem bi se legalizirala obstoječa stanovanja. Poleg tega sta bili načrtovani prenova industrijske dediščine in njena vključitev v novo sosesko (Ajuntament de Barcelona, 2006). To naj bi dosegli predvsem z osredotočanjem na urbani razvoj t. i. strateških območij, ki bi po pričakovanju mestne uprave delovala kot gonilo preobrazbe celotnega območja, zagotavljala koherentnost in omogočala mešano rabo za zadostno neprekinjenost stanovanjskega tkiva (Ajuntament de Barcelona, 2000: 18).

Mestna uprava je zato 22@ v javnosti predstavila in upravičevala kot projekt izjemnega pomena za prihodnost Poblenouja in mesta v celoti (Ajuntament de Barcelona, 2012). Nekdanji vodja občinske urbanistične službe je jasno predstavil pričakovano vlogo 22@ za dolgoročno gospodarsko rast mesta ter njegov pomen za izboljšanje kakovosti življenja na tem območju. Po njegovem mnenju se mora spoj novih storitvenih dejavnosti vrniti v mesto, v novo, na znanju temelječe mesto. Urbanistični predpisi in gospodarski ukrepi morajo omogočiti in spodbujati okrevanje industrije, da bi lahko obdržali položaj med vodilnimi evropskimi mesti, z novimi zaposlenimi v novih pisarnah, z dobrimi komunikacijami, skratka, da se bo izboljšala kakovost življenja prebivalcev (Bragado i Acín, 2001: 42).

Veliko teh izhodiščnih ciljev je bilo v zadnjem desetletju doseženih. Poblenou se je spremenil iz na videz propadajoče v živahno sosesko z mešano rabo, kjer se zdi, da so razne družbene in gospodarske dejavnosti dobro povezane (slika 1). Razvijajoče se panoge in storitve, ki temeljijo na znanju in kulturi, izobraževalne in raziskovalne organizacije ter javne ustanove zagotavljajo nove poslovne priložnosti in delovna mesta, prebivalci pa uživajo v novih javnih parkih ter uporabljajo javne storitve

Preglednica 2: Rast števila prebivalcev v Wangsimniju

	1979	1984	1989	1994	1999	2004	2009	2014
prebivalstvo	32.622	34.298	31.212	25.224	26.178	23.961	13.682	13.086
rast		5 %	–9 %	–19 %	4 %	–8 %	–43 %	–4 %

Vir: SMG, 2015a

Slika 2: Nova soseska Wangsimni je popolnoma nadomestila staro sosesko (foto: Choi Hongyi).

in infrastrukturo (Ajuntament de Barcelona, 2012). Vendar v nasprotju z začetnimi cilji zagotavljanje teh storitev ni sledilo hitremu ritmu urbanega razvoja, poleg tega tudi varovanje industrijske dediščine pred pričakovano komercializacijo območja ni potekalo po načrtih. Charnock idr. (2014: 200) opozarjajo, da so v resnici preobrazbo večinoma določale najemniške prakse, ki so stremele k monopolnim najemninam, in ne prizadevanja za spodbujanje industrije, temelječe na znanju, ali izboljšanje kakovosti življenja v Poblenouju. Glede na upad števila delovnih mest v tradicionalnem industrijskem in storitvenem sektorju, rast stanovanjskih stroškov in izključevanje prebivalcev iz zbirokratiziranih procesov odločanja (Marrero Guillamón, 2010; Dot Jutgla idr., 2012) ne preseneča, da je območje dejavnosti 22@ tudi negativno vplivalo na vsakdanje življenje v Poblenouju in spodbudilo lokalne prebivalce, da začnejo nasprotovati preobrazbi območja (Križnik, 2014).

4.3 Seul: Nova soseska Wangsimni

Na prvi pogled se zdi Nova soseska Wangsimni (WNT) za Seul mnogo manj pomembna, kot je 22@ za Barcelono. Urbana prenova majhnega območja mešane rabe, velikega 324.000 m^2, v novo stanovanjsko-poslovno sosesko je bila samo eden od podobnih projektov, ki so bili v zadnjem desetletju zgrajeni po vsem mestu. WNT je hkrati tudi eden izmed pilotnih projektov novega mestnega razvoja (ang. *New Town Development*) – pobude, ki jo je mestna uprava leta 2002 predstavila, da bi uravnotežila urbani razvoj, ustvarila nova delovna mesta in naložbene priložnosti ter izboljšala gospodarsko konkurenčnost Seula (Kim, 2010; Kang, 2012). Z reševanjem vprašanj, povezanih z nenačrtnim širjenjem mesta, stanovanjskimi razmerami, pomanjkanjem infrastrukture in javnih storitev ter čedalje večjo brezposelnostjo, naj bi pobuda odpravila

Preglednica 3: Dojemanje vsakdanjega življenja in urbanega razvoja v Poblenouju in Wangsimniju (deleži odgovorov)

	Poblenou	Wangsimni
delovno mesto v soseski	58 %	66 %
pogosto preživljanje koncev tedna v soseski	66 %	69 %
dnevno srečevanje sosedov	28 %	32 %
tedensko srečevanje sosedov	20 %	41 %
dobri odnosi s sosedi	69 %	65 %
dojemanje soseske kot slabo razvitega območja	29 %	64 %
dobro poznavanje 22@/WNT	17 %	8 %
22@/WNT izraža interese prebivalcev	6 %	37 %

regionalna neskladja. Osredotočala se je na urbana območja v severnem Seulu, ki jih je mestna uprava obravnavala kot nerazvita, da se gospodarska rast in urbani razvoj uravnotežita s premožnejšim južnim delom mesta (SMG, 2010). Takratni podžupan, odgovoren za javne zadeve in eden idejnih vodij pobude, je poudarjal njen veliki strateški pomen. Po njegovem mnenju je bil glavni razlog za to pobudo dejstvo, da je prišel čas, ko se je bilo treba osredotočiti na revitalizacijo obstoječih sosesk, in ne na gradnjo sindosi.[5] Zato je bilo treba obstoječe mesto prenoviti na podlagi obsežnih, celostnih načrtov, ki upoštevajo splošne potrebe po urbani infrastrukturi (navedeno v Kim, 2010: 95). Wangsimni je bil izbran kot eden od treh pilotnih projektov, ki naj bi pokazali prednosti novega načrtovalskega pristopa, ki celovito obravnava družbene, gospodarske in okoljske vidike urbane prenove (Cho in Križnik, 2017).

Wangsimni je bil nekoč na obrobju Seula. Med hitro industrializacijo mesta v šestdesetih letih 20. stoletja so se na tem območju nakopičile številne majhne tovarne, ki pa so v naslednjih desetletjih začele počasi, a vztrajno nazadovati (Seoul Museum of History, 2009). Med letoma 1979 in 2004 je Wangsimni izgubil 27 % svojega prebivalstva (preglednica 2). Gospodarsko nazadovanje in slabe bivalne razmere so bili skupaj z dobro dostopnostjo in bližino mestnega središča med glavnimi razlogi, da je mestna uprava to območje izbrala in vključila v pobudo novega mestnega razvoja (SMG, 2005). Kljub temu se zdi, da je bila ta odločitev manj rezultat dejanskih potreb prebivalcev in bolj posledica gospodarskih in političnih interesov mestne uprave, še zlasti v povezavi z bližnjo prenovo potoka Cheonggye.[6] Čeprav projekta med seboj uradno nista bila povezana, je imela prenova potoka Cheonggye neposreden vpliv na izbiro Wangsimnija kot pilotnega projekta, s čimer je želela mestna uprava pokazati pozitivne učinke prenove na degradirana urbana območja (Kim, 2010).

Soseska WNT je bila načrtovana kot območje mešane stanovanjske in poslovne rabe s številnimi javnimi storitvami in obsežnimi zelenimi površinami. Mestna uprava je načrt predstavila kot okolju prijazno skupnost v središču mesta, ki živi v sožitju s potokom Cheonggye, ter kot podeželsko območje v osrčju metropole in novo skupnost, kjer lahko sobivajo prebivalci različnih generacij in družbenih skupin (SMG, 2005: 22). Toda v resnici je urbana prenova povzročila popolno uničenje stare soseske. Zgradila se je nova soseska, ki pa ima malo skupnega z napovedanimi cilji načrta ali interesi deležnikov. Neskladnost načrta in njegove dejanske izvedbe je bila predvsem posledica spremenjenega odnosa mestne uprave, ki je sprva pozvala k prenovi obstoječih mestnih območij in poskušala prisluhniti različnim deležnikom, na koncu pa je upoštevala le špekulativne interese lastnikov nepremičnin (Cho, 2008; Kim, 2010). Mestna uprava si je tako prizadevala načrt čim prej uresničiti, saj je bil strateškega pomena za mesto (SMG, 2010).

Soseska WNT, ki bo kmalu dokončana in ponuja nove stanovanjske in poslovne prostore ter javne storitve, je močno izboljšala bivalno okolje za nove prebivalce (slika 2). Vendar preobrazba ni spremenila samo bivalnega okolja v Wangismniju, ampak tudi obstoječo družbeno strukturo in gospodarsko organiziranost soseske, poleg tega je tudi negativno vplivala na vsakdanje življenje na tem območju. Večina nekdanjih prebivalcev se je morala izseliti, obsežne rušitve pa so negativno vplivale tudi na lokalno gospodarstvo in življenje skupnosti ter povzročile izgubo delovnih mest v tradicionalnih industrijskih in storitvenih sektorjih (Kim, 2010). Toda v nasprotju z obsežno mobilizacijo prebivalcev v Poblenouju so se protesti majhnih lastnikov nepremičnin in najemnikov v Wangsimniju začeli pozno, pri čemer so si prizadevali zaščititi predvsem svoje materialne interese, preobrazbi območja pa niso nasprotovali (Križnik, 2014).

4.4 Posledice in dojemanje urbanega razvoja

Izsledki ankete in intervjujev razkrivajo, da sta imela Poblenou in Wangsimni pred preobrazbo dobro razvito gospodarsko in skupnostno življenje. To je v popolnem nasprotju s podobo razvrednotenih urbanih območij, ki sta jo javnosti predstavljali mestni upravi, da bi upravičili preobrazbo Poblenouja in Wangsimnija (Ajuntament de Barcelona, 2000; SMG, 2005). 66 % vprašanih v Poblenouju in 69 % v Wangsimniju je zatrdilo, da so svoj prosti čas pogosto preživljali na tem območju, približno

polovica vprašanih pa je imela delovno mesto v soseski. Oboje kaže na močno navezanost na kraj (Livingston idr., 2010). 28 % vprašanih v Poblenouju in 32 % v Wangsimniju je svoje sosede srečevalo dnevno, 20 % vprašanih v Poblenouju in 41 % v Wangsimniju pa je sosede srečevalo tedensko. Poleg tega je 69 % vprašanih v Poblenouju in 65 % v Wangsimniju svoje odnose s sosedi označilo kot odlične ali dobre (preglednica 3). Anketa kaže, da je bila v preteklosti za vsakdanje življenje v Poblenouju in Wangsimniju značilna razmeroma močna družbena kohezija, ki je ključna za družbeno vzdržnost lokalnih okolij (Manzi idr., 2010; Colantonio in Dixon, 2011).

Če bi obe mestni upravi skrbela družbena vzdržnost, bi morali preobrazbi Poblenouja in Wangismnija ohranjati in krepiti družbeno kohezijo območja. Eden od namenov 22@ je bil dejansko legalizirati 4.614 stanovanjskih enot, ki so veljale za nezakonite, ker so bile zgrajene na zemljiščih, namenjenih izključno industrijski rabi, s tem bi nove objekte in storitve povezali z obstoječim družbenim in urbanim tkivom (Ajuntament de Barcelona, 2000). Takšen pristop bi lahko ohranil družbene vezi, navezanost na kraj in skupnostno identiteto v Poblenouju. Toda veliko teh stanovanjskih stavb je bilo pozneje zaradi špekulativnega urbanega razvoja porušenih. Porušili naj bi se tudi stari industrijski objekti, kar je postalo glavni vir spora med mestno upravo in prebivalci. Ti so industrijsko dediščino dojemali kot pomemben del svojega kolektivnega spomina na zgodovino industrializacije (Grupo de trabajo sobre patrimonio del Fòrum Ribera del Besòs, 2003: 7). Družbena mobilizacija prebivalcev – ki so želeli ohraniti stare tovarne in skupnostno identiteto Poblenouja – je mestno upravo prisilila, da je veliko industrijskih zgradb zaščitila kot kulturno dediščino in jih nazadnje nekaj namenila javni rabi (Ajuntament de Barcelona, 2006).

Prebivalci Poblenouja so se spopadali tudi z razlastitvijo, razselitvijo, upadom števila delovnih mest in rastjo stanovanjskih stroškov (Assemblea de Joves del Poblenou i Assemblea d'Endavant del Poblenou, 2011; Dot Jutgla idr., 2012). Zaradi urbane regeneracije se je v Poblenou v zadnjih desetih letih priselilo več kot 20.000 prebivalcev, kar je enakovredno tretjini vseh prebivalcev, ki so v soseski živeli leta 2000 (preglednica 1). V istem obdobju se je prebivalstvo v okrožju Sant Martí, kjer je Poblenou, povečalo samo za 12 % (Ajuntament de Barcelona, 2015). Dejansko število novih prebivalcev bi bilo lahko še večje, saj so morali nekateri starejši prebivalci območje zapustiti zaradi naraščajočih stroškov in pomanjkanja cenovno dostopnih stanovanj. Med letoma 2000 in 2010 so v okrožju Sant Martí najemnine naraščale najhitreje v celotnem mestu. V primerjavi s povprečno rastjo najemnin v Barceloni, ki je znašala 187 %, so se povprečne najemnine v tem okrožju zvišale za 212 % (Ajuntament de Barcelona, 2015). Da bi zagotovila cenovno dosegljiva stanovanja, je nameravala mestna uprava zgraditi 4.000 socialnih stanovanj, od katerih bi jih bilo 25 % namenjenih prebivalcem Poblenouja. Do leta 2010 je bilo dejansko dokončanih samo 1.520 stanovanj (Ajuntament de Barcelona, 2012). Posledično so prebivalci začeli preobrazbo območja dojemati kot načrten poskus mestne uprave, da spremeni obstoječo družbeno strukturo in skupnostno identiteto Poblenouja (L'Associació de Veïns, 2003). To je še zaostrilo nesoglasja med nekaterimi skupinami prebivalcev in mestno upravo (Križnik, 2014).

V nasprotju s Poblenoujem, kjer je večina prebivalcev ostala v soseski in je bil del stanovanjskih in industrijskih zgradb ohranjen, je bil Wangsimni popolnoma porušen. Več kot 10.000 prebivalcev ali približno 45 % celotnega prebivalstva iz leta 2004 je bilo v zadnjem desetletju prisiljenih zapustiti sosesko (preglednica 2). V tem obdobju se je v okrožju Seongdong-gu, v katerem je Wangsimni, število prebivalcev zmanjšalo le malenkostno (SMG, 2015a). Med tistimi, ki so ga zapustili, so bili večinoma najemniki iz gospodinjstev z majhnimi dohodki, zaradi naraščajočih stanovanjskih stroškov pa je malo možnosti, da se bodo po dokončani gradnji WNT vrnili (Lee, 2009; Kang, 2012). V tem pogledu se WNT ne razlikuje dosti od drugih projektov urbane prenove v Seulu, pri katerih se v novo sosesko navadno vrne manj kot 20 % prebivalcev (Shin in Kim, 2016). Takšna množična razselitev prebivalcev lahko izjemno negativno vpliva na družbeno vzdržnost lokalnega okolja (Manzi idr., 2010).

Preobrazba Poblenouja in Wangsimnija je povzročila tudi upad števila delovnih mest v tradicionalnih industrijskih in storitvenih sektorjih. V Poblenouju je bilo leta 1999 1.661 industrijskih podjetij ali 23 % vseh podjetij. Potem ko se je leta 2000 začel graditi 22@, je njihovo število do leta 2004 upadlo za 21,6 %, na 1.302, v naslednjih letih pa je še naprej upadalo (Ajuntament de Barcelona, 2008). Čeprav naj bi bilo po navedbah mestne uprave do leta 2010 ustvarjenih 56.000 novih delovnih mest (Ajuntament de Barcelona, 2012), jih večino zasedajo novi prebivalci ali dnevni vozači in so nedosegljiva prebivalcem, ki so delali v tradicionalnih industrijah in storitvah. V Wangsimniju, kjer so leta 2004 industrijska podjetja zajemala 40,5 % vseh podjetij (Seongdong-gu District Office, 2006), so bile razmere še slabše. Podjetja so bila večinoma mala in povezana v industrijske grozde, v katerih so fizična bližina in neposredni stiki ključni za poslovanje (Cho in Križnik, 2017). Po porušenju Wangsimnija teh socialnih in proizvodnih omrežij ni bilo več mogoče ohraniti in številna podjetja so se bila prisiljena preseliti ali končati svoje poslovanje. Leta 2012 v Wangsimniju ni bilo tako rekoč več nobene industrije. Prejšnje raziskave kažejo, da so imeli tradicionalni industrijski in storitveni sektorji v Barceloni in Seulu pomemben vpliv na oblikovanje družbene kohezije v lokalnih okoljih (Nahm, 2001; Marrero Guillamón, 2010). Njihov propad je negativno vplival

ne samo na gospodarsko, temveč tudi na družbeno vzdržnost Poblenouja in Wangsimnija.

V nasprotju s Poblenoujem, kjer se je družbena mobilizacija prebivalcev proti gospodarskim in družbenim posledicam preobrazbe soseske začela že leta 2000, so prebivalci Wangsimnija sprva podpirali WNT. Čeprav so Wangsimni dojemali kot prijeten kraj za življenje, so sosesko videli tudi kot nerazvito območje, na katerem je primanjkovalo poslovnih priložnosti, zaradi česar so na začetku podpirali načrt prenove (preglednica 3). Kim (2010) navaja, da je bila ta podpora povezana tudi z dejstvom, da je načrtovanje vodila mestna uprava in so zato prebivalci verjeli, da je WNT v javnem interesu. Naraščajoče vrednosti nepremičnin, za katere so prebivalci pričakovali, da jim bodo prinesle finančne koristi, so še dodatno vplivale na njihovo podporo. Med letoma 2002 in 2007 so cene zemljišč v Wangsimniju zrasle za 111 %, cene zemljišč v Seulu pa so v istem obdobju v povprečju zrasle za 55 % (Kang, 2007). Po mnenju intervjuvancev je podpora WNT po letu 2006 močno upadla zaradi počasnega izvajanja načrta, finančnih izgub, naraščajočih stanovanjskih stroškov in koruptivnih praks združenj za prenovo. Tako so nekateri lastniki nepremičnin in skupine najemnikov začeli aktivno nasprotovati uresničevanju načrta (Kim, 2010; Križnik, 2014).

Anketa kaže, da so prebivalci Poblenouja in Wangsimnija spoznali (čeprav ne sočasno), da je preobrazba bolj v interesu lastnikov nepremičnin, zasebnih korporacij ali mestne uprave kot pa njih samih (preglednica 3). Dejstvo, da je bil 22@ načrtovan brez sodelovanja javnosti in da si je mestna uprava sprva za to le malo prizadevala, je to mnenje samo še okrepilo (Degen in García, 2012). Za večino prebivalcev glavna težava ni bila sama preobrazba, temveč njihova nevključenost v odločanje (Oliva, 2003; Marrero Guillamón, 2010). Hiter urbani razvoj na eni strani in počasna prenova javnih storitev na drugi sta po mnenju intervjuvancev še okrepila njihov negativni odnos do 22@. V nasprotju s Poblenoujem je mestna uprava v Seulu poskušala prebivalce vključiti v načrtovanje WNT. Toda počasen proces vključevanja javnosti, ki je prinesel malo oprijemljivih rezultatov, in zahteve združenj za prenovo po čimprejšnji izgradnji WNT sta mestno upravo prisilila, da je nazadnje prebivalce izključila iz odločanja. To je koristilo špekulativnim lastnikom nepremičnin in zasebnim korporacijam, a je bilo hkrati zelo nepravično do lastnikov nepremičnin, ki so bili proti projektu, ali do najemnikov (Kim, 2010: 154). Lee (2006) ob tem izpostavlja, da je bilo dejansko sodelovanje prebivalcev pod pričakovanji. Nekateri niso imeli časa, drugi pa so morda ugotovili, da imajo zaradi premoči združenj za prenovo v tem procesu v resnici zelo malo besede.

Ne preseneča, da so anketiranci preobrazbo svoje soseske dojemali razmeroma negativno, čeprav mnogi ob tem niso bili natančno seznanjeni s podrobnostmi obeh načrtov. Samo 6 % vprašanih v Poblenouju je verjelo, da 22@ izraža interese prebivalcev, 53 % pa jih je menilo, da je načrt v interesu zasebnih korporacij in mestne uprave. V Wangsimniju je 37 % vprašanih, večina med njimi je bilo lastnikov nepremičnin, menilo, da je WNT v njihovem interesu (preglednica 3). Ugotovitve ankete in intervjujev kažejo, da sta 22@ in WNT posledično prispevala k čedalje večjemu nezaupanju prebivalcev v javne ustanove, kar negativno vpliva na družbeno vzdržnost (Manzi idr., 2010; Dempsey at el., 2011).

5 Sklep

22@ in WNT se razlikujeta glede na načrtovalski pristop, deležnike in institucionalni kontekst. 22@ je primer celovite dolgoročne urbane regeneracije, ki poskuša združiti nove objekte in storitve z obstoječim družbenim in urbanim tkivom v Poblenouju. Mestna uprava je najprej pripravila in izvedla načrt v partnerstvu z zasebnim sektorjem brez večjega sodelovanja javnosti. WNT pa je primer kratkoročne urbane prenove, pri katerem je bilo lokalno okolje popolnoma porušeno in nadomeščeno z novo sosesko. Čeprav so bili prebivalci na začetku delno vključeni v odločanje, so zasebne korporacije ob podpori mestne uprave obvladovale celoten proces načrtovanja in izvedbe. Kljub tem precejšnjim razlikam izsledki raziskave kažejo, da sta imela 22@ in WNT z vidika družbene vzdržnosti podobne posledice v lokalnem okolju, še zlasti na družbeno kohezijo in sodelovanje javnosti pri odločanju.

Za vsakdanje življenje v Poblenouju in Wangsimniju so bili včasih značilni močne družbene vezi, navezanost na kraj ter posebna lokalna kultura in skupnostna identiteta. Oba načrtovalska pristopa nista veliko pripomogla k ohranitvi teh družbenih in kulturnih struktur, ki so pomembne za krepitev družbene kohezije na nekem območju. Preobrazba, zaradi katere so se porušila obstoječa stanovanjska in industrijska območja ter je povzročila izgubo delovnih mest v tradicionalnih industrijskih in storitvenih sektorjih, propad družbenega življenja in naraščanje stanovanjskih stroškov, je družbeno kohezijo v Poblenouju in Wangsimniju oslabila, namesto da bi jo okrepila. Čeprav sta 22@ in WNT ustvarila nova delovna mesta, zagotovila nova stanovanja in javne površine ter izboljšala javne storitve in infrastrukturo, vsi od tega niso imeli enake koristi, kar je posledično negativno vplivalo na dojemanje preobrazbe med nekaterimi skupinami prebivalcev. Po njihovem mnenju je bila nova soseska predvsem v interesu mestne uprave in zasebnih korporacij, kar je posledično oslabilo njihovo zaupanje v javne ustanove. To zaupanje je dodatno omajala izključitev prebivalcev iz odločanja.

Družbena vzdržnost je večplasten pojem, ki ga je težko ovrednotiti. To je še težje v primerih, kot sta 22@ in WNT, kjer za-

radi še vedno potekajoče gradnje njenih dolgoročnih posledic še ni mogoče v celoti oceniti. Kljub temu je študija jasno pokazala na premajhno sodelovanje javnosti in oslabljeno družbeno kohezijo, ki sta pomembna vidika družbene vzdržnosti v lokalnem okolju. Čeprav se oba načrtovalska pristopa pomembno razlikujeta, je dejstvo, da 22@ in WNT nista mogla zagotoviti družbene vzdržnosti, v obeh primerih posledica špekulativnega urbanega razvoja, pri katerem se je preobrazba degradiranih urbanih območij uporabila za privabljanje naložb, krepitev gospodarske konkurenčnosti in izboljšanje privlačnosti mesta kot celote. V javnosti sta se oba načrta upravičevala kot navidezno koristna za vse prebivalce, v resnici pa sta koristila predvsem lastnikom nepremičnin in zasebnim korporacijam. Izsledki raziskave zato kažejo, da lahko špekulativni urbani razvoj negativno vpliva na družbeno vzdržnost, ne glede na uporabljeni načrtovalski pristop. Zaradi še vedno trajajoče preobrazbe Poblenouja in Wangsimnija je predstavljena raziskava omejena. V tem pogledu bi bilo treba izvesti naknadno študijo, s katero bi opredelili spremembe v načrtovalskem pristopu v daljšem obdobju in celovito ocenili dolgoročne vplive preobrazbe na družbeno vzdržnost v Barceloni in Seulu.

Blaž Križnik
Hanyang University, Graduate School of Urban Studies, Seul, Republika Koreja
E-naslov: blaz@hanyang.ac.kr

Opombe

[1] V članku se avtor pri poimenovanju opisanih načrtovalskih pristopov v Barceloni in Seulu naslanja na ustaljena angleška izraza in njuni slovenski ustreznici. Čeprav je bil projekt 22@ prvotno predstavljen kot projekt urbane obnove (kat. *renovació urbana*), se v angleških dokumentih in literaturi omenja kot projekt urbane regeneracije (ang. *urban regeneration*; Ajuntament de Barcelona, 2000; 2012; Charnock idr., 2014). WNT pa se opisuje kot projekt urbane prenove (ang. *urban redevelopment,* kor. *dosijaegaebal*; SMG, 2010; Kim, 2010; Križnik, 2014).

[2] Intervjuji, opravljeni v Barceloni, so vključevali šest predstavnikov civilne družbe (sosedskega združenja Poblenou, zgodovinskega arhiva Poblenou, komisije proti 22@ in foruma Ribera del Besòs), tri predstavnike mestne uprave (barcelonskega mestnega sveta, sveta okrožja Sant Martí in urbanističnega urada Barcelona Regional), enega predstavnika zasebnega sektorja (omrežja 22@) in dva strokovnjaka (enega predstavnika katalonske politehnike UPC in enega predstavnika katalonskega inštituta za napredno arhitekturo IaaC). V Seulu je pet intervjuvancev zastopalo civilno družbo (odbor za skupnostni razvoj v Wangsimniju, korejski svet za lokalno agendo 21, korejsko raziskovalno središče KOCER in inštitut Hope), trije so zastopali lokalno upravo (seulsko metropolitansko upravo in zgodovinski muzej v Seulu), štirje so zastopali zasebni sektor (2. in 3. združenje za prenovo v Wangsimniju, industrijsko in trgovsko združenje Wangsimnija in podjetja Dongyang Purena), vključeni pa so bili tudi štirje strokovnjaki (predstavnik seulskega razvojnega inštituta SDI, predstavnik seulske državne univerze SNU, predstavnik univerze v Seulu UOS in predstavnik univerze Konkook).

[3] Projekta 22@ in WNT sta najbolj vplivala na preobrazbo upravnih enot *El Poblenou* in *Wangsimni 1-dong*. Prva je imela leta 2008 30.949 prebivalcev, v drugi pa je leta 2006 živelo 14.099 prebivalcev, kar je bila podlaga za anketno vzorčenje (Ajuntament of Barcelona, 2008; SMG, 2015a).

[4] Barcelona in Južna Koreja sta te načrtovalske pristope formalizirali leta 1976, ko je barcelonski mestni svet sprejel splošni metropolitanski načrt, ki je zagotovil pravno podlago za urbano regeneracijo degradiranih urbanih območij, v Južni Koreji pa je bil sprejet zakon o urbani prenovi (Degen in García, 2012; Kim, 2013).

[5] *Sindosi* je korejsko poimenovanje za nova mesta, ki so bila v zadnjih desetletjih zgrajena v seulski metropolitanski regiji za reševanje težav s pomanjkanjem stanovanj, javnih storitev in infrastrukture v Seulu.

[6] Prenova potoka Cheonggye (ang. *Cheonggyecheon Restoration*) je še en strateški projekt iz leta 2002, s katerim je bila nekdanja hitra cesta Cheonggye spremenjena v petkilometrski mestni park, skozi katerega teče obnovljena struga potoka Cheonggye. Čeprav je prenova močno izboljšala okoljske razmere v središču Seula in obnovila del zgodovinske in kulturne dediščine, je bila hkrati tarča kritik zaradi pomanjkanja okoljske pristnosti in prispevka h komercializaciji okoliških območij (Križnik, 2011).

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Mateja ŠMID HRIBAR
Jani KOZINA
David BOLE
Mimi URBANC

Javno dobro, skupni viri in skupno: vpliv zgodovinske zapuščine na sodobno dojemanje v Sloveniji kot tranzicijski družbi

Namen prispevka je proučiti in jasno opredeliti pojme javno dobro, skupni viri in skupno. V članku smo na podlagi prostorsko-časovne analize, intervjujev in delavnic med splošno in strokovno javnostjo osvetlili dojemanje javnega dobra in skupnega v Sloveniji kot tranzicijski družbi. Analiza je pokazala, da na razumevanje teh pojmov med splošno javnostjo še vedno močno vpliva poudarjanje socialne pravičnosti, enakosti in dostopnosti dobrin za vse iz obdobja socializma, kar je lahko v nasprotju s pravico do zasebne lastnine. Neustrezno upravljanje dobrin, ki so dojete kot javno dobro, v resnici pa so skupni viri, lahko vodi v konflikte in razvrednotenje skupnih virov, s čimer bomo izgubili prednosti, ki nam omogočajo kakovostnejše življenje. Ker smo od omejenih naravnih virov življenjsko odvisni, je treba o njih nujno ozavestiti splošno in strokovno javnost, izpostaviti ranljivost teh virov in pojasniti, da ne morejo biti dostopni vsem v neomejenih količinah. V mednarodnem okolju želimo s predstavljenim slovenskim primerom prispevati k boljšemu razumevanju človeškega vedenja in pričakovanj do javnega dobra in skupnih virov v postsocialističnih tranzicijskih družbah.

Ključne besede: javno dobro, skupno dobro, skupni viri, skupno, skupna lastnina, prostor, upravljanje, tranzicijska družba, Slovenija

1 Uvod

Kulturna krajina, naj bo podeželska ali urbana, kot življenjski prostor prinaša dobrine na različnih ravneh in za različne skupine ljudi. Lastnike zanima predvsem njen ekonomski vidik, nelastniki pa imajo pričakovanja glede javnega in skupnega dobra (Šmid Hribar idr., 2015). Tako je zaradi polpretekle zgodovine in tranzicijskega stanja slovenske družbe del slovenske javnosti prepričan, da dobrine, kot so na primer gozdni sadeži, gozdovi, mestne zelenice, obale rek in jezer ter podobno, pripadajo vsem in jih lahko vsi tudi uporabljajo, saj meni, da so javno dobro. Z njimi se ne strinjajo lastniki zemljišč, v glavnem kmetje, ki želijo omejevati rabo tovrstnih dobrin. Neustrezno dojemanje javnih dobrin se nanaša tudi na urbana območja. Pomenske razlike med pojmoma javno in skupno dobro niso jasne. Splošna javnost ju večinoma uporablja sinonimno, pri čemer prevladuje izraz javno dobro, kar bomo uporabljali v nadaljevanju. K zmedi dodatno prispeva tipologija dobrin, po kateri sta v ekonomskem in okoljevarstvenem diskurzu ključni lastnosti dobrine manjša ali večja dostopnost in manjše ali večje zmanjševanje z rabo (Ostrom in Ostrom, 1977; Ostrom, 2005). Zgoraj omenjene dobrine torej v resnici niso javno dobro, temveč skupni viri, saj so prosto dostopne in se njihova razpoložljivost z uporabo manjša.

Namen tega prispevka ni preverjanje akademskih pojmov javnega in skupnega dobra ter skupnih virov med splošno in strokovno javnostjo, ampak želimo z njim osvetliti, da splošno razumevanje javnega dobra – ne glede na poimenovanje – in z njim povezanih pravic včasih ni ustrezno in je posledica preteklega dojemanja upravičenosti do dobrin. Po drugi strani so pritiski lastnikov po omejevanju dostopa do dobrin čedalje izrazitejši, kar ustvarja razkorak med pravicami do zasebne lastnine, določene po 33. členu Ustave RS (Ustavni zakon o dopolnitvi III. poglavja Ustave Republike Slovenije, Ur. l. RS, št. 75/2016), in privilegiji, pridobljenimi v prejšnjem sistemu. Dejstvo je, da v socialistični preteklosti pridobljeni privilegiji prinašajo prednosti, ki jih sodobna zakonodaja delno ohranja in lastnikom omejuje uporabo nekaterih dobrin. Tako 67. člen Ustave RS (Ustavni zakon o dopolnitvi III. poglavja Ustave Republike Slovenije, Ur. l. RS, št. 75/2016) določa, da mora zakon določiti način pridobivanja in uživanja lastnine tako, da je zagotovljena njena gospodarska, socialna in ekološka funkcija. Skladno z navedenim smo postavili hipotezo, da slovenska družba, ki spada med tranzicijske, številne prosto dostopne dobrine v kulturni krajini, ki so pravzaprav skupni viri, dojema kot javno dobro, do katerega so upravičeni vsi, pri čemer trči ob pravice do zasebne lastnine. Predvidevamo, da je tako dojemanje posledica polpretekle zgodovine oziroma političnih, ideoloških, gospodarskih in družbenih sprememb.

Nepoznavanje skupnih virov in neustrezno upravljanje lahko vodita v konflikte glede uporabe in razvrednotenje virov ter posledično v izgubo prednosti, ki omogočajo kakovostnejše življenje. Zato menimo, da v tranzicijskih družbah, kakršna je slovenska, potrebujemo jasno opredelitev pojmov javnega dobra in skupnih virov. To bo prispevalo k razumevanju, da nekatere dobrine, čeprav so prosto dostopne, niso javno dobro, da jih ni v neomejenih količinah in da so ranljive, zaradi česar ni samoumevno, da so vedno vsem na voljo. Ustrezno poznavanje razlike med javnim dobrom in skupnimi viri je pomembno, saj vpliva na pričakovanja in vedenje javnosti do dobrin, ki imajo ključno vlogo pri dobrobiti in kakovosti življenja. Tovrstne dobrine so skupni viri predvsem zato, ker lastniki ne omejujejo dostopa do njih, tega pa ne storijo, ker je takšne vire a) fizično težko ograditi (npr. gozd) in s tem omejiti njihovo nabiranje (npr. gozdne sadeže) ali b) ni v slovenski tradiciji, da bi fizično omejevali dostop in njihovo rabo.

Cilji članka so:

1. pojasniti, zakaj se v slovenski tranzicijski družbi pojavljajo nesporazumi o dojemanju javnih dobrin in skupnih virov, in pokazati, kako se to kaže v konfliktih, povezanih z dostopnostjo do skupnih virov,
2. osvetliti, kako širša in strokovna javnost v Sloveniji razumeta pojma javno in skupno dobro, in
3. opozoriti na jasno razliko med javnim dobrom in skupnimi viri, da bomo razumeli in znova ozavestili, da prosto dostopne dobrine, ki so skupni viri, niso javno dobro in zato ne morejo biti dostopne vsem v neomejenih količinah.

2 Teoretska izhodišča

Izraz javno dobro v slovenski zakonodaji ni jasno opredeljen, uporablja se nekonsistentno in nesistematično (Vugrin, 2005; Šmid Hribar idr., 2015). V že omenjenem ekonomskem in okoljevarstvenem diskurzu so raziskovalci v drugi polovici 20. stoletja v iskanju opredelitve javnega dobra dobro opredelili s kriterijema (ne)izključenosti in (ne)konkurenčnosti (Samuelson, 1954, navedeno v Ostrom, 2010; Musgrave, 1969, navedeno v Desmarais-Tremblay, 2013), ki so ju pozneje natančneje opredelili in zamenjali s kriterijema manjše/večje dostopnosti in manjšega/večjega zmanjševanja z uporabo (Ostrom, 2010). S križanjem kriterijev (ne)izključenosti in (ne)konkurenčnosti sta Musgravova (Musgrave in Musgrave, 1973) s teoretičnim modelom opredelila štiri tipe dobra, pri čemer sta se poleg zasebnega in javnega dobra pokazali še dve obliki: dobro, katerega razpoložljivost se z uporabo ne manjša, a nimajo vsi dostopa do njega, in dobro, katerega razpoložljivost se z uporabo manjša, a je težko preprečiti dostop. Za drugo obliko se je sprva uporabljal termin skupno dobro. Vendar

je ta termin, čeprav je bil že od antične Grčije del zahodne politične misli (Lee, 2018) in širše uporabljen koncept, ki ga obravnava večina političnih mislecev (Dupré, 1993), ohlapen, nenatančen in so mogoče zlorabe (Jaede, 2017). Po mnenju Mansbridgeeve (2013) pomen koncepta izvorno ni dorečen. Zadevo še otežuje dejstvo, da se pojem skupnega dobra pogosto zamenja z javnim dobrom in javnimi interesom (Mansbridge, 2013). Zaradi proste dostopnosti in omejenosti je ta kategorija dobrine postala zanimiva za raziskovalce. Pomemben pečat sta ji dala zlasti Vincent in Elinor Ostrom (1977; Ostrom, 2005) ter njuni sodelavci, ki so jo poimenovali skupni viri (ang. *common-pool resources*). Po opredelitvi je skupni vir »naravni vir ali sistem vira, ki ga je ustvaril človek in ki je dovolj obsežen, da je drago (vendar ne nemogoče) potencialnim uporabnikom preprečiti, da bi z uporabo pridobili koristi« (Ostrom, 1990: 30). Omenjene lastnosti niso odvisne od družbenopolitičnih dejavnikov, temveč so neločljivo povezane s skupnimi viri. Skupni viri se zaradi proste dostopnosti pogosto zamenjujejo z javnim dobrom.

Nepoznavanje skupnih virov vodi v neustrezno upravljanje in uporabo virov. Neustrezna zakonodaja pri tem ni v pomoč. To lahko vodi v poslabšanje ali celo uničenje vira, na kar je opozoril Hardin (1968) v znamenitem prispevku *Tragedy of the commons*. V njem je izpostavil usodno človeško lastnost, in sicer da vsak posameznik išče le svoje koristi. Sodobna primera tragedije skupnega sta čezmerni ribolov v Jadranskem morju (Fromentini, 2009; Colloca idr., 2013) in gospodarjenje z denacionalizirani gozdovi na Slovaškem (Kluvánková in Gežík, 2016). Čezmerna uporaba skupnega vira ali neprimeren poseg vanj imata lahko otipljive družbenogospodarske posledice (Rodela, 2012). Hardinovemu pristopu je uspešno nasprotovala Ostromova (1990), ki je zagovarjala, da se je tragediji skupnega mogoče izogniti z ustreznim upravljanjem. Izpostavila je (1990, 2000, 2010), da ne trg oziroma neoliberalni ekonomski model ne država niti zasebniki prek koncesijskih pogodb niso ponudili želenih rešitev za trajnostno upravljanje skupnih virov. Na podlagi številnih primerov iz različnih delov sveta je Ostromova ugotovila, da skupne vire lahko upravljajo tudi lokalne skupnosti (Ostrom, 1990; 2010). Leta 2009 je za spoznanje, da ljudje ob spoprijemanju z omejenimi viri zmorejo delovati in sodelovati v skupno korist, prejela Nobelovo nagrado (Ostrom, 2010; Anderies in Janssen, 2013). V Sloveniji takšna sodelovanja poznamo v obliki agrarnih skupnosti, ki so več stoletij upravljale skupna zemljišča oziroma skupno v širšem smislu (Vilfan, 1996; Petek in Urbanc, 2007; Bogataj, 2012), bile v času socialistične ureditve razpuščene, po osamosvojitvi Slovenije pa se zopet oživljajo. Termin skupno (ang. *commons*) dodatno vpliva na zmedo med pojmoma javno in skupno dobro. Nanaša se na dobrine v skupni lasti, ki jih upravljajo skupnosti, ob uporabi skupnostnih praks, s točno določenimi pravili in se pogosto napačno razumejo kot skupno dobro. Na zmedo je pred leti opozorila McKeanova (2000), ki je izpostavila, da je skupna lastnina le posebna oblika zasebne lastnine v skupni rabi. Po njenem mnenju je treba razlikovati med dobrinami, pravicami in pravnimi subjekti/zasebnimi lastniki, ki posedujejo stvari. Dobrine, pravice in pravni subjekti so lahko zasebni ali javni.

Zmeda pri razumevanju pojmov javnega dobra in skupnega v Sloveniji je predvsem posledica zgodovinsko-institucionalnega konteksta. Ta učinek se imenuje prostorsko-časovna odvisnost (ang. *path dependency*) in ga označuje zaporedje zgodovinskih dogodkov v prostoru, ki vodijo v sedanje institucionalne vzorce ali verigo dogodkov. Z opredelitvijo zgodovinskih dogodkov v nekem prostoru in njihovega medsebojnega učinkovanja lahko razkrijemo prostorske, družbene in druge vzorce (Godina, 2015). Heinmiller (2009) meni, da je prostorsko-časovna odvisnost pri proučevanju skupnostnih praks pri upravljanju skupnih virov premalo raziskana, a lahko ključno vpliva na upravljanje virov. Analiza skupnostnih praks v zgodovinskem kontekstu na Portugalskem (Gomes Lopes idr., 2013) je pokazala, da je sedanje stanje skupnih zemljišč tesno povezano s ključnimi zgodovinskimi obdobji. Sočasno se je pokazalo sosledje oblikovanja odnosov do virov in pravil, ki so vodila v različne parcelacije in pravne oblike skupnih zemljišč. Godina (2015) izpostavlja, da je bil pomen prostorsko-časovne odvisnosti prezrt pri načrtovanju in izvajanju družbenih sprememb v postsocialističnih družbah, vključno s slovensko. Kot glavni razlog navaja ideološko obarvan odnos do zgodovine, ki temelji na ideji diskontinuitete s socializmom. Enako lahko trdimo tudi za socialistično in industrijsko družbo v razmerju do agrarne družbe pred letom 1945. Dodatno zmedo povzročata ključna koncepta polpretekle zgodovine: družbena lastnina in samoupravljanje. Zakon o združenem delu (Ur. l. SFRJ, št. 53/1976), ki je vpeljal koncept družbene lastnine, ne podaja opredelitve, iz komentarja (Grahek, 1988: 14) pa izhaja: »Delavci si tako prilaščajo del dohodka, vendar ne na lastninski, temveč na delovni podlagi.« S prenehanjem pogodbe o delu je ugasnila tudi pravica do dohodka iz določene družbene lastnine. Samostojno upravljanje lastnine je bilo bistvo delavskega samoupravljanja, uzakonjenega leta 1950 (Zakon o upravljanju državnih ..., Ur. l. FLRJ, 1950). Oba koncepta sta v spremenjenem pomenu še vedno v zavesti ljudi (Toplak, 2014) in vplivata na pojmovanje dobrin. Navedene trditve vsaj deloma lahko posplošimo na druge postsocialistične države srednje in vzhodne Evrope (Premrl idr., 2015; Markuszewska, 2018), v katerih so zaradi družbenogospodarskih sprememb kot posledica spremembe režima in decentralizacije oblasti nastale številne vrzeli med lastninsko zakonodajo in pravicami v praksi. Razkorak med *de iure* in *de facto* pri upravljanju dobrin vodi do krčenja širših interesov v korist posameznikov, kar povzroča slabšanje kakovosti in zmanjševanje zalog skupnih virov (Sikor, 2004).

3 Metode

V 4. poglavju članka smo kot metodološki okvir uporabili koncept prostorsko-časovne odvisnosti in na podlagi pregleda literature utemeljili tri zgodovinska obdobja, ki vplivajo na dojemanje pojmov javnega dobra in skupnega v slovenski družbi, ki jo še vedno označuje postsocialistična tranzicija. S tem pristopom želimo opozoriti na vlogo (ne)ustreznega razumevanja lastnosti naravnih virov in pokazati, da jih je mogoče trajnostno upravljati. V 5. poglavju članka smo na podlagi intervjujev in delavnic navedli primere javnega in skupnega dobra na pilotnih območjih ter izpostavili prednosti in konflikte, ki jih ustvarjajo te dobrine. Zanimalo nas je, kaj domačini na pilotnih območjih in strokovna javnost razumejo kot javno in kot skupno dobro. Jeseni 2015 smo na treh pilotnih območjih (krajevne skupnosti Bevke, Čadrg in Kosovelje) izvedli po eno delavnico z domačini o koristih krajine ter o javnem in skupnem dobru v njihovih naseljih. Od marca do novembra 2016 smo izvedli 31 poglobljenih strukturiranih intervjujev z domačini in 23 z deležniki iz javnega sektorja, ki se pri svojem delu posredno ali neposredno ukvarjajo s krajinami (s področja razvoja podeželja, varstva zavarovanih območij, narave in kulturne dediščine, kmetijstva, gozdarstva in lova). Intervjuji so v povprečju trajali 53 minut in so obsegali tri sklope vprašanj o odnosu posameznika do kulturne krajine, pri čemer se je tretji sklop nanašal na vprašanja o javnem in skupnem dobru v krajini, njihovih koristih in morebitnih konfliktnih situacijah.

4 Vpliv prostorsko-časovnih odvisnosti na razumevanje javnega dobra in skupnega v Sloveniji

V Sloveniji lahko razmejimo tri pomembna zgodovinska obdobja, ki so povezana s širšimi političnimi, gospodarskimi in demografskimi spremembami. Klemenčič (1989; 1997) na podlagi sektorske teorije (Small in Witherick, 1986) piše o različnih razvojnih stopnjah – demografskih, družbenogospodarskih, geografskih in drugih –, ki so pustile odtise na krajini in ljudeh. Zlasti so zanimive družbenogospodarske stopnje, ki s spreminjanjem deležev v sektorjih zaposlitve nakazujejo prehod od agrarne prek industrijske do postindustrijske (informacijske) družbe. Slovenska družba je bila do šestdesetih let 20. stoletja pretežno agrarna, nato je sledila bliskovita in kratka industrializacija do devetdesetih let 20. stoletja, tej pa je sledila terciarizacija družbe. Odločilno vlogo sta imela socialistična ureditev po drugi svetovni vojni in prehod v tržno gospodarstvo po osamosvojitvi Slovenije. Skladno s tem smo se odločili, da dojemanje javnega dobra in skupnega prikažemo na podlagi treh zgodovinskih mejnikov: agrarnega obdobja do konca druge svetovne vojne (do leta 1945), obdobja socializma, kolektivizacije in industrializacije (1945–1991) in obdobja samostojne Slovenije (po letu 1991), ki je zaznamovano s terciarizacijo gospodarstva, individualizacijo družbe in prehodom v tržno gospodarstvo.

4.1 Agrarna družba (do leta 1945)

Agrarna družba je gospodarsko temeljila na primarnem sektorju (kmetijstvo, lov, ribolov in gozdarstvo). Prevladovala je razdrobljena zasebna lastnina, v manjšem obsegu pa so bili pašniki in gozdovi v posesti vaških skupnosti, ki so te dobrine uporabljale skupno (Vilfan, 1996). Ker so bile skupnosti od virov odvisne, so večinoma pazile, da jih ne izčrpavajo ali poškodujejo (Rodela, 2012). Slovenija ima bogato tradicijo skupnih zemljišč, ki so imela velik gospodarski pomen, povezan s preživetjem ne le posameznih družin, ampak celotnih vasi (Petek in Urbanc, 2007). Skupna zemljišča po nastanku segajo še v dobo plemenske ureditve in so se prek fevdalizma ponekod ohranila do današnjih dni. Obči državljanski zakonik Habsburške monarhije iz leta 1812 je razlikoval med a) javnim dobrom, kamor so spadale stvari, prepuščene v rabo vsem državljanom (na primer javne ceste, napajališča), b) občinskim dobrom, do katerega so bili upravičeni občani, in c) občinskim premoženjem, iz katerega naj bi se pokrivali občinski stroški (Vilfan, 1996). Vendar že Vilfan opozarja, da je različne oblike skupne lastnine težko razvrstiti v omenjene pravne kategorije in da so se pravice do koriščenja krajevno razlikovale. Krovna termina zajemata več regionalnih in časovnih različic; skupno zemljišče: »komunšna«, »komunela« in »gmajna« (prav tam: 237) in agrarna skupnost: »soseska« (Petek in Urbanc, 2007), »sose(d)ska«, »srenja«, »jus«, »skupnina« (Bogataj, 2012). Poleg gospodarjenja na skupnih zemljiščih je agrarna skupnost skrbela za vzdrževanje, na primer urejanje poti in napajališč (Ravnik, 1998). Na splošno se bile do konca fevdalizma pravice na skupnih zemljiščih dokaj enotne in vezane na pripadnost lokalni skupnosti, po njegovem zatonu pa so se začele diferencirati. Vilfan (1996) izpostavlja, da so se ostanki nekdanjih vaških skupnosti ohranili v primerih skupnostnega upravljanja skupnih zemljišč. Pri upravljanju je prevladoval gospodarski vidik, ki pa je bil zaradi nizke stopnje tehnološkega razvoja večinoma okoljsko vzdržen. Kljub temu so se pojavljale tudi prakse, ki so vodile v osiromašenje ali celo izgubo naravnega vira. Eden takšnih primerov je izguba šote na Ljubljanskem barju. V začetku 19. stoletja, tik pred intenzivnim osuševanjem, naj bi bilo na njem do 1500 ha šotišč (Pavšič, 2008). Franciscejski kataster kaže, da so bili med letoma 1824 in 1827 številni mokrotni travniki in pašniki skupna zemljišča (Šmid Hribar, 2016). Z osuševanjem in delitvijo zemljišč po letu 1830 pa so nekdanji skupni pašniki prehajali v zasebno last. Zaradi gospodarskih dobičkov so lastniki začeli v drugi polovici 19. stoletja šotišča intenzivno izkoriščati. Kljub ocenam, da zaloge šote zadoščajo

Slika 1: Rezanje in sušenje šote na Ljubljanskem barju (vir: arhiv Krajinskega parka Ljubljansko barje)

za 229 let, je šota v nekaj desetletjih pošla in posledično so se barjanska tla znižala (Melik, 1927). Poplavna ogroženost Ljubljanskega barja se je povečala in spremenile so se funkcije krajine in ekosistemske storitve, posledice pa občutijo vsi zdajšnji prebivalci (Šmid Hribar, 2016).

4.2 Industrijska družba (1945–1991)

Ključni vpliv na današnje dojemanje in upravljanje javnega dobra in skupnega ima obdobje socializma, ki so ga spremljale temeljite strukturne in ideološke reforme družbene, politične in gospodarske ureditve. Pomembni sta zlasti nacionalizacija in posledična razlastitev večjih posestnikov. Z zemljiškim maksimumom jim je bilo dovoljeno obdržati največ 35 hektarov (Zakon o agrarni ..., Ur. l. LRS, št. 10/1948), od leta 1953 pa le še 10 hektarov obdelovalnih zemljišč (Zakon o kmetijskem ..., Ur. l. FLRJ, št. 22/53). Razlastitev je poleg kmetov zajela tudi agrarne skupnosti (Zakon o agrarnih skupnostih, Ur. l. LRS, št. 52/1947; Zakon o razpolaganju ..., Ur. l. SRS, št. 7/1965), s čimer je bila prekinjena kontinuiteta načina upravljanja omejenih naravnih virov. Czerny (2014) na primeru izbrane agrarne skupnosti Škrbina-Rubije-Šibelji predvideva, da je odsotnost kontinuiranega skupnega upravljanja agrarnih skupnosti vplivala na razumevanje njihovih članov. Pri tem izpostavlja razlikovanje med upravljavskimi cilji pasivnih in aktivnih članov agrarne skupnosti. Aktivni člani dajejo prednost gospodarskim ciljem, pasivni člani pa okoljskim. Hkrati oboji ocenjujejo komunikacijo kot pomembno pri odločanju v agrarni skupnosti. Prepoznavajo tudi pomen usklajevanja glede rabe skupnih virov, kar je po njihovem mnenju poglavitno za preživetje agrarne skupnosti na dolgi rok (prav tam). Agrarna reforma, ki je povzročila razlastitev velikih posestnikov, je obenem vplivala na kolektivizacijo in vzpostavitev velikih državnih sistemov, kot so socialistične zadruge, kmetijski kombinati in državna gozdna podjetja (Jepsen idr., 2015; Premrl idr., 2015). Nastal je velik razkorak med povprečno 200 ha velikim kmetijskim kombinatom in povprečno 5,2 ha velikim kmečkim gospodarstvom (Drozg, 2007).

Podobno kot v drugih državah vzhodnega bloka je bila za Slovenijo po drugi svetovni vojni značilna uvedba centralnoplanskega gospodarstva (Jepsen idr., 2015). Zasebno lastnino sta zamenjali državna in družbena lastnina (Urbanc, 2002). Moč odločanja se je s posameznikov, kmečkih gospodarstev in lokalnih skupnosti prenesla na državno raven (Partlič, 1989), z uvajanjem družbene lastnine in delavskega samoupravljanja pa na zaposlene v podjetju (Šetinc, 1979; Toplak, 2014). Z uvajanjem novih oblik lastnine so se začele krhati stoletja trajajoče in nastajajoče vezi med omejenimi viri in njihovimi lokalnimi skupnostmi, te so bile tudi njihove dejanske upraviteljice. Posledično se je začelo izgubljati znanje o značilnostih virov. Odgovornost za njihovo upravljanje je bila prenesena predvsem na državne ustanove, ki zaradi fizične in/ali kognitivne oddaljenosti niso bile tako dovzetne za trajnostno upravljanje. Eden prvih kritikov povojne kmetijske politike je bil po mnenju Partličeve (1989) Pučnik, ki se je že leta 1963 v tedaj ideološko spornem prispevku O dilemah našega kmetijstva spraševal o ciljih kmetijske politike: ali je to urejena preskrba s hrano ali odprava zasebne lastnine in uvedba kolektivne pridelave (Pučnik, 1963, navedeno v Partlič, 1989: 433). Negativen odnos do kmeta kot zasebnega proizvajalca (Urbanc, 2002; Razpotnik Visković in Seručnik, 2013) in načrtno ustanavljanje industrijskih podjetij po vsej Sloveniji sta vplivala na obsežno socialno preslojevanje iz agrarnih v neagrarne dejavnosti ter s tem povezano urbanizacijo oziroma demografsko in prostorsko rast mest (Drozg, 2007). Razdrobljenost posesti, tudi kot posledica agrarne reforme, je povzročila oblikovanje obsežnega sloja polkmetov, ki so zaradi šibke gospodarske moči ohranjali drobno posest, pestrost kmetijskih krajin in ekstenzivno obdelovanje zemljišč (Urbanc, 2002) ter delovali zaviralno pred intenzivno deagrarizacijo. S tem so imeli pomembno vlogo pri vzdrževanju tradicionalne kulturne krajine (Razpotnik Visković in Seručnik, 2013).

Z industrializacijo družbe in deagrarizacijo je začel v ospredje stopati mestni prostor (Drozg, 2007), v katerega se je prenesla problematika urejanja skupnega. Rezultat nedomišljenih strukturnih in ideoloških reform je še viden na primeru javnih zelenih površin ob večstanovanjskih stavbah (Zlatkova, 2015; Simoneti, 2016), ki naj bi meščanom omogočale kakovostnejše življenje in jih povezovale z naravo, a v zadnjih desetletjih postajajo vse bolj ogrožene.

4.3 Postindustrijska družba (po letu 1991)

Postindustrijska družba se je v Sloveniji razvila po letu 1991, ko je število zaposlenih v storitvenih dejavnostih rastlo hitreje od števila industrijskih delavcev (Klemenčič, 1989; 1997). Po-

Slika 2: Stanovanjske zelene urbane površine, ki so se začele pojavljati v obdobju socializma, so pomembno urbano skupno, hkrati pa tudi skupni vir, zato jih je treba upravljati (foto: Peter Stavanja).

litične, družbene in gospodarske spremembe, ki so sledile osamosvojitvi in prehodu iz totalitaristične socialistične družbene ureditve v demokracijo in tržni kapitalizem (Drozg, 2007), ter zamenjava vrednostnih usmeritev družbe in posameznikov, povezanih z zmanjševanjem pomena kolektivizacije in naraščanjem individualizacije, so prinesle številne posledice.

Z vidika javnega dobra in skupnega sta ključni predvsem dve vrsti procesov. Prva se nanaša na odpravo družbene lastnine kot prevladujoče oblike lastniških razmerij iz socialističnega obdobja, druga pa na obujanje načinov skupnostnega upravljanja omejenih naravnih virov, ki se je izvajalo že v agrarni dobi. Odpravo družbene lastnine sta spremljali denacionalizacija in privatizacija, med katerima je pomembna vsebinska razlika. Pri prvi so bila lastniška razmerja razmeroma jasna in razumljiva. Premoženje se je vrnilo oškodovancem ali njihovim dedičem (Premrl idr., 2015) in vzpostavilo se je stanje pred nacionalizacijo. Pri privatizaciji pa je bilo lastništvo ohlapnejša kategorija, družbeno lastnino in nadzor nad produkcijskimi sredstvi pa je zamenjala razpršena in nepregledna zasebna lastnina. Neustrezna prerazdelitev bogastva in moči med pripadnike politične in gospodarske elite je lahko vodila v divjo privatizacijo (Lorenčič, 2009) ter slabšo kakovost vodenja in upravljanja državnega premoženja. Zadnje je značilno za vse nove države članice Evropske unije (Tomšič in Vehovar, 2012). Pozornost privatiziranja se je od nastanka gospodarske krize od državnih podjetij premaknila predvsem v prostor (zemljišča), energetiko, vodo, ki imajo lahko lastnosti skupnih virov in so ključni za preživetje. Denacionalizacija je obudila načine upravljanja skupnih zemljišč iz obdobja pred industrijsko družbo. Zakonodaja, sprejeta po osamosvojitvi Slovenije, omogoča ponovno vzpostavitev agrarnih skupnosti ter vračanje odvzetega premoženja in pravic (Petek in Urbanc, 2007). Vendar imajo zaradi slabo premišljenega Zakona o denacionalizaciji iz leta 1991, po katerem naj bi bila zemljišča vrnjena individualnim dedičem, agrarne skupnosti številne težave pri izvedbi sodnih postopkov, saj zakon vodi k privatiziranju nekoč skupne posesti in s tem v verjetno spremembo uporabe tovrstnih zemljišč (Šmid Hribar idr., 2015). Po navedbah Cerarja idr. (2011) naj bi bilo v postopkih nacionalizacije v socializmu ukinjenih in razlaščenih od 1.000 do 1.500 agrarnih skupnosti, pri čemer obseg njihovih zemljišč ni znan. Premrl (2013) je navedel, da je v registrih upravnih enot zavedenih 638 agrarnih skupnosti, od tega potencialno aktivnih 547, za dodatnih 48 postopki vračila premoženja še niso bili končani. Agrarnim skupnostim je bilo vrnjenih 77.486,47 ha zemljišč, kar je 3,67 % ozemlja Slovenije (Premrl, 2013). V nasprotju z agrarno dobo, ko je bil pomen skupnih zemljišč zlasti gospodarski, v sodobnem času v ospredje prihajata ohranjanje in vzdrževanje ekološkega ravnovesja, biotske raznovrstnosti, tradicionalne kulturne krajine in podeželja nasploh (Petek in Urbanc, 2007; Jepsen idr., 2015; Šmid Hribar idr., 2015).

Z nedokončano privatizacijo, preobrazbo komunalnih služb in izvajanjem javne službe urejanja javnih zelenih površin lahko povežemo slabše vzdrževanje starejših stanovanjskih sosesk, ki

jim brez celovite prenove preti razvrednotenje. Občine brez posebnih usmeritev, meril in pogojev za razdelitev površin med javne in zasebne so pri urejanju zelenih površin sosesk ravnale različno. V prostoru se to kaže v slabem vzdrževanju, prisvajanju, preurejanju in špekulantskih nakupih. Za zdaj poslabšanje kakovosti v starejših soseskah slovenskih mest še ni kritično, vendar lahko slabo vzdrževanje vodi v zmanjšanje možnosti za nove ureditve, v skrajnem primeru tudi v nepovratno izgubo javnih zelenih površin (Simoneti, 2016). V Sloveniji postajajo pereča težava tudi različne oblike rekreacije v gozdu, med katerimi je priljubljeno nabiranje gozdnih sadežev. Nezadovoljstvo lastnikov gozdov je še večje, če nabiralci in rekreativci niso domačini. Jeseni 2016 so se v nekaterih krajih razvile tako imenovane kostanjeve vojne, ko so se jezni domačini zaradi pretiranega nabiranja kostanja, malomarnega parkiranja in vožnje zunaj prometnih cest uprli obiskovalcem (Omladič, 2016).

5 Javno in skupno dobro v Sloveniji

5.1 Dojemanje javnega in skupnega dobra med domačini

Večina domačinov na vseh treh pilotnih območjih slabo razlikuje med pojmoma javno in skupno dobro. Intervjuvanka iz Bevk pravi: »V bistvu ne ločim to zelo dobro, ker je to zame zelo podobno.« Včasih isto stvar hkrati razumejo kot javno in skupno dobro. Po podrobnejšem spraševanju se je izkazalo, da domačini pretežno skupno in javno dobro opredeljujejo le z lastninsko pravico ali pravico do uporabe dobrine. Javno dobro je po večinskem mnenju dobrina, ki je v javni lasti, za katero ni treba plačati in jo lahko uporabljajo vsi. Skladno s tem javno dobro razumejo kot javne površine, ki so last vseh: na primer zemljišča v lasti občine, občinska lastnina, ceste in poti, korita/napajališča za napajanje živine, vodnjak, kal, lokev, infrastruktura, prostor za smetnjake, zemljišča Sklada kmetijskih zemljišč, pokopališče, spomeniki, razgledišče. Prebivalci tudi vodo dojemajo kot javno, ne kot skupno dobro. Med javnimi dobrinami domačini izpostavljajo tudi storitve, ki so namenjene vsem, npr. javno zdravstvo, gasilci, bolnica, šole.

Pod pojmom skupno dobro domačini razumejo tisto, kar uporabljajo le krajani posameznega naselja: naravne vire, skupna zemljišča, zaprte ali odprte prostore in infrastrukturo ter stvari, ki so jih naredili, zgradili ali vzpostavili v skupnih akcijah v sklopu vaške skupnosti in za njihovo uporabo. »Skupno dobro je vse, kar skupaj naredimo,« meni intervjuvanec iz Kosovelj. Kot glavne primere skupnega dobra so povsod izpostavljali skupen zrak, vodo, mir, dostopnost do dediščine. Ključni so skupno lastništvo, skupno delo, koristi in uporaba. Po mnenju domačinov so skupno dobro v Čadrgu pitna voda in vaški vodovod, skupna zemljišča, kjer je možnost paše, ekološko kmetijstvo, priprava drv na skupnih zemljiščih, razgledišče s klopjo, prostor, na katerem so sadili in sadijo orehe, sirarna, korita za napajanje živine. V Kosoveljah so skupno dobro skupni vodnjaki za zalivanje vrtov, ceste, pešpoti, tudi lokev, prostor za kurjenje kresa, prostor za smetnjake, parkirni prostor, tudi zasebni vrt, ki ga odprejo in želijo deliti z drugimi, optični kabel s hitrim prenosom podatkov, nove zastave ter gobe in zelišča. V Bevkah so kot skupno dobro izpostavili nekatere kraje, pomembne za varstvo narave, pitno vodo in vodno zajetje, zdravilne rastline in možnosti druženja v prostorih, ki so jih pridobili s skupnimi močmi, kot so gasilski dom, športni park, vrtec, šola, cerkev, pokopališče. Po mnenju domačinov jim vse omenjene dobrine, podobno kot javno dobro, izboljšujejo kakovost življenja in prinašajo koristi.

Na vseh treh pilotnih območjih poznajo konflikte, povezane z rabo javnega in skupnega dobra. Največkrat je šlo za neustrezno upravljanje vodnih virov. V enem primeru je bilo nestrinjanje posledica vzpostavitve nadzora kakovosti pitne vode in s tem povezanih finančnih in upravljavskih stroškov. Prebivalci so se dogovorili in sprejeli ustrezno rešitev. Drug primer se je nanašal na globoko lokev s pitno vodo, ki so jo z napačnim gradbenim posegom skoraj uničili in v kateri voda ni več pitna, jo pa zdaj poskušajo sanirati. Zadnji primer je povezan z vodnim virom, od katerega je odvisna sosednja občina. Prebivalci so možnost črpanja pitne vode pogojevali z ureditvijo dela ceste, ki poteka po sosednji občini. Pereče je tudi vprašanje gozdov, ki so nekoč pripadali agrarni skupnosti in na katerih so lovišča, ki so v lasti države. Prebivalci se ne strinjajo z davčnimi bremeni za zemljišča, s katerimi ne smejo gospodariti.

5.2 Dojemanje javnega in skupnega dobra med strokovno javnostjo

Tudi strokovna javnost skoraj ne razlikuje med javnim in skupnim dobrom, a pri svojem delu večinoma uporablja izraz javno dobro, ki ga razume kot tisto, kar potrebujemo za preživetje, zato moramo imeti dostop do tega vsi. To so ceste, prometnice, (gozdne) vlake, poti, skratka infrastruktura, ki omogoča prehodnost in dostop do zemljišč, gozdov, obale. Nekateri intervjuvanci so omenjali še mir, razglede, ohranjeno krajino, prostor, gozd in kmetijska zemljišča, naravo, ohranjene rastlinske in živalske vrste, vodo in preskrbo z njo, šole, trge ter drevnino in parke. Tudi strokovna javnost javno dobro povezuje pretežno z lastništvom in pogosto meni, da zaradi poseganja v zasebno lastnino lastnikom povzroča breme. Po mnenju strokovnjakinje za prostor zapleti lahko nastanejo tudi, ko je lastnica zadevnih javnih dobrin občina, drugih javnih dobrin pa država, kar kaže na potrebo po večnivojskem upravljanju.

Redka razmišljanja o skupnem dobru so se nanašala na tisto, kar uporabljajo skupno: ceste, skupne pašnike, travnike, gozdo-

ve, tudi vodo in krajino. Torej, podobno, kar so omenjali že pri javnem dobru. Pri skupnem dobru so posamezniki izpostavili uporabo, ki lahko pride navzkriž z zasebnim interesom, predstavnica varstva kulturne dediščine pa je omenila, da se začnejo »ljudje skupnega dobra zavedati, ko ga začnejo izgubljati«. Dodatna asociacija na skupno dobro so bile agrarne skupnosti, ki upravljajo skupna zemljišča in dobrine (npr. les), ki jih lahko uporabijo člani agrarne skupnosti. Med koristmi skupnega dobra so posebej omenili gobe, beluši, možnost rekreacije in estetske vrednote v nekem okolju.

Tudi strokovna javnost se zaveda konfliktov, ki izhajajo iz pretirane in množične rabe javnega in skupnega dobra. Izpostavila je konflikt pri uporabi prireditvenega prostora ob sotočju Tolminke in Soče, ki je skoraj vse poletje v času festivalov zaprto. To jezi domačine, ki so se tam vedno lahko sprehajali in kopali, zdaj pa za to potrebujejo vstopnico. Na tem območju je tudi gozd s posebnim namenom, ki mu zaradi množičnega obiska festivalov grozi razvrednotenje. Predmet konfliktov so tudi nabrežja rek, ki so v Sloveniji prosto dostopne. Poleti jih obiskujejo obiskovalci iz različnih delov Slovenije, ki za sabo nemalokrat puščajo smeti, kar še dodatno razjezi domačine. Izpostavljen je bil problem uporabe reke Soče, kjer so bili v konfliktu ribiči, kajakaši in rafterji. Rešitev so našli v prostorski in časovni razmejitvi različnih dejavnosti. Verjetno bo treba podoben mehanizem upravljanja uporabiti pri rabi padalskih vzletišč, saj povečano število padalcev in čas zadrževanja na vzletnih točkah vznemirjata divjad. Vse večji konflikt ustvarja tudi nabiranje gob.

6 Razprava

Prvi cilj članka je bil pojasniti konflikte pri dojemanju nekaterih dobrin, za katere splošna javnost v Sloveniji meni, da so javno dobro, s čimer pa se lastniki ne strinjajo. Nesporazum smo želeli pojasniti z analizo prostorsko-časovne odvisnosti. Kot se je izkazalo, na dojemanje teh dobrin še vedno močno vplivajo lastništvo ter pojma družbena lastnina in samoupravljanje iz časa socialistične Jugoslavije, manj pa dogodki v agrarni dobi. Kot smo pričakovali, so v agrarni družbi, vsaj na območjih z večstoletno naselitvijo, upoštevali ranljivost naravnih virov, saj je bila trajnostna raba virov ključna za preživetje skupnosti. Domačini so se pri upravljanju omejenih naravnih virov največkrat organizirali v agrarne skupnosti in se s strogimi pravili uporabe skupnega izognili tragediji, ki jo je napovedoval Hardin (1968). Pokazali so, da je z omejenimi viri mogoče gospodariti tako, da se vir kljub uporabi nekaterih dobrin ohranja za prihodnje rodove, kar je pozneje na več mednarodnih primerih dokazala Ostromova (1990, 2005). Kljub temu je bila že takrat ponekod značilna čezmerna uporaba, in to predvsem zaradi slabega poznavanja vira in razdelitev zemljišč. Takšen primer je uničenje šote na Ljubljanskem barju v drugi polovici 19. stoletja, ko so nove lastnike vodile predvsem gospodarske koristi. Omejeni naravni viri, npr. pitna voda, lokve, gozdovi in pašniki, so še danes pomembni za kakovost življenja. Na pilotnem območju v Čadrgu so staro prakso skupnostnega upravljanja omejenih virov prenesli v sodoben čas. Uspešno upravljajo skupne gozdove, pašnike in vodo, pesti pa jih nerazumevanje države, ki jih na eni strani spodbuja k vpisu skupnih gozdnih zemljišč v zemljiško knjigo, po drugi strani pa jim ne priznava pravice do soodločanja pri upravljanju divjadi.

V industrijski dobi je v Sloveniji, ki je bila takrat del Jugoslavije, nastal lastninski konflikt med kmeti na eni in državo na drugi strani zaradi uveljavljanja koncepta družbene lastnine. Tega koncepta ne smemo enačiti s konceptom skupnega iz agrarne dobe, saj je koncept družbene lastnine temeljil na delu, koncept skupnega pa na skupnostnem upravljanju omejenih virov, ki so bili v skupni lasti. Caffentzisem (2010) pravi, da je socialistična ideologija ustvarila podobo skupnega gospodarjenja z viri, ki pa je v resnici temeljilo na restriktivnem upravljanju na podlagi birokratskih ali povsem kapitalističnih kriterijev. Podobno je trdil Pučnik (1963), ki je odpravo zasebnega lastništva na podeželju povezoval s socialno krivico in ekonomsko diskriminacijo kmečkega prebivalstva. Odprava agrarnih skupnosti in podržavljanje skupnih zemljišč po drugi svetovni vojni potrjujeta ugotovitev Obeng-Odooma (2016), da nevarnost za obstoj ne preti od znotraj, temveč je zunanja. Le da v Sloveniji odprava ni bila posledica kapitalizma ali imperializma, temveč jih je, ironično, odpravil komunizem. Prenos lastništev in/ali upravljanja na javne ustanove se je mnogokrat izkazal za problematičnega (npr. Zlatkova, 2015; Simoneti, 2016). Po eni strani so viri (p)ostali lastninsko v družbeni lasti, a ker se niso zavedali njihove ranljivosti, je bilo upravljanje pogosto slabo dorečeno brez ustreznih pravil in sankcij, kar je vodilo v propadanje. Na podeželju se je to na primer kazalo kot zaraščanje kmetijskih površin zaradi ideološke podpore industrializaciji, v mestih pa kot razvrednotenje skupnih zelenih površin ob večstanovanjskih stavbah. Za posledice slabšega upravljanja ali celo odsotnosti upravljanja so najbolj odgovorne »oddaljene« javne ustanove, ki zaradi pomanjkanja znanja in šibkih osebnih vezi niso prepoznale, da imajo tovrstni naravni viri lastnosti skupnih virov. Intervjuji z domačini kažejo ta še vedno trajajoči konflikt, saj praviloma grajajo ravnanje države z omejenimi naravnimi viri (npr. gozdovi, vodo) in menijo, da ni dober gospodar.

Kot upor socialistični kolektivizaciji so postsocialistične države navdušeno sprejele neoliberalizem (Smith in Timár, 2010), kjer ima država precej manjše možnosti usmerjanja lokalnega in regionalnega razvoja kot v planskem gospodarstvu (Drozg, 2005). Znani so pritiski lastnikov gozdov, da se uporaba gozdnih sadežev omeji na lastnike (Kumer, 2017). V poglavju 5.2

smo že omenili primer zapiranja prostora ob sotočju Soče in Tolminke v času festivala, kar je za slovensko javnost nerazumljivo in pomeni nezakonito prilaščanje skupnega prostora, ki ga domačini uporabljajo za sprehode in sprostitev. Koncesionar si je s plačilom uradno kupil pravico do omejitve gibanja za neobiskovalce festivala, vendar bi morala občina upoštevati, da imajo do prostora pravico tudi domačini, in temu primerno prilagoditi upravljanje. Na podlagi analize prostorsko-časovne odvisnosti v treh obdobjih ugotavljamo, da so posledice spreminjanja vpliva in moči posameznikov, skupnosti in ustanov na upravljanje omejenih virov v Sloveniji še danes vidne v različnem dojemanju javnega dobra in skupnega ter posledično tudi v različnih pričakovanjih javnosti in lastnikov do tovrstnih dobrin.

V intervjujih z domačini in strokovno javnostjo smo ugotavljali, kaj ti razumejo kot javno in skupno dobro, kar je bil drugi cilj članka. Izkazalo se je, da med pojmoma skoraj ne razlikujejo in ju dojemajo kot nekaj, kar je prosto dostopno. Razlikovanje je vezano predvsem na lastninsko pravico in gospodarsko korist, s čimer se skupno dobro pomensko približuje skupnemu. Predvidevamo, da je to posledica prostorsko-časovnega konteksta in procesov, ki so oblikovali in še oblikujejo dojemanje skupnega in njihovega lastništva (agrarne skupnosti, nacionalizacija, denacionalizacija ipd.). Domačini skupno dobro pogosto enačijo s skupnimi stvarmi in ju uporabljajo kot sinonima. Za skupno je značilna skupna lastnina, pri čemer je dobrina, odvisno od (ne)dostopnosti, lahko zasebna ali pa skupni vir, ni pa javno dobro. Gozd v lasti agrarne skupnosti in zelene površine v blokovskih soseskah so zaradi proste dostopnosti skupni vir, ograjen skupni pašnik in sirarna pa ne, ker je dostop do njiju omejen. Na vseh treh pilotnih območjih domačini veliko truda namenjajo obstoju in nadgradnji skupnega; dejavno prostovoljno sodelujejo v skupnih akcijah in se zavedajo, da so pri izboljšanju kakovosti življenja odvisni predvsem od sebe in svojih, tudi finančnih vložkov. V preteklih desetletjih so si sami ali z lastnimi sredstvi zgradili vodovode, telefonsko napeljavo, elektriko, ponekod celo ceste. Vlagajo v obnovo in vzpostavitev kolesarskih in pohodnih poti, čistijo okolico, obnavljajo stare suhe zidove, vzdržujejo in gradijo skupne prostore. Nekatere stvari so si domačini pripravljeni deliti med seboj, zmoti pa jih, če se kdo želi okoristiti s pridobitvami njihovega skupnega dela in prispevkov. To kaže na pomembno vlogo skupnega pri izboljšanju kakovosti življenja domačinov. Pozitiven odnos do skupnega soustvarjanja in obnavljanja lastne okolice, ki jo upravlja skupnost, je nedvomna lastnost slovenskega podeželja. Skupno je v Sloveniji razumljeno več kot le skupna lastnina, saj gre za skupne vaške stvari, kar dodatno krepi skupnost in soustvarja lokalno identiteto.

Podobno smo tudi med strokovno javnostjo zaznali povezovanje skupnega dobra s skupno uporabo in z ustanovami, ki upravljajo skupna zemljišča (npr. agrarne skupnosti). Dobro se zaveda konfliktov, ki izhajajo iz povečane ali neopredeljene rabe nekaterih dobrin (npr. prostor, pitna voda, gobe), in ugotavlja, da je za reševanje tovrstnih konfliktov potreben dialog z vsemi vpletenimi, čemur mora slediti večnivojsko upravljanje. A kot ugotavlja Rodelova (2012), ključne odločitve glede skupnih virov v Sloveniji še vedno sprejemajo državne ustanove (zavodi, ministrstva, agencije), njihove resorne politike in razvojne programe pa izvajajo na dislociranih enotah. Ta način upravljanja skupnih virov je dediščina socializma, v katerem je centralizirani državni aparat okrepil svojo moč in veljavo. Alternativa tovrstnemu upravljanju so sodobni tuji modeli kompleksnega upravljanja skupnih virov, ki temeljijo na konceptih, kot so soupravljanje (Somerville in Haines, 2008), večaktersko upravljanje (Schut idr., 2014) ali večnivojsko upravljanje (Hooghe in Marks, 2003). Ključna pri omenjenih konceptih sta vzajemno oblikovanje in zastopanje različnih skupnosti, da bi uvedli učinkovitejše politike upravljanja skupnih virov.

Tretji cilj članka je bil opozoriti na jasno razliko med javnim dobrom in skupnimi viri, da bomo razumeli, zakaj prosto dostopne dobrine, ki so skupni viri, niso javno dobro in zato ne morejo biti neomejeno dostopne vsem. Obdobje socializma je s poudarjanjem socialne in prostorske pravičnosti, enakosti in dostopnosti dobrin za vse (Drozg, 2005) okrepilo mnenje javnosti, da sta dostop in koriščenje tovrstnih dobrin (npr. gozdni sadeži, dostop do obale in podobno) njihova neodtujljiva pravica. Težava nastopi, ker javnost te dobrine še vedno dojema kot javno dobro in se ne zaveda negativnih posledic pretirane in neustrezne rabe. To potrjuje Heinmillerjevo (2009) ugotovitev, da pretekli vzorci lahko vplivajo na zakoreninjena razumevanja, pogosto povezana s starimi pravicami. V Sloveniji smo v agrarni dobi že poznali skupnostno upravljanje omejenih virov, ki je bilo v socializmu prepovedano in nadomeščeno z upravljanjem vsega kot družbene lastnine brez zavedanja o omejenosti naravnih virov. Danes čutimo posledice obeh praks, ki se krešejo in vplivajo na trenutna dojemanja in pričakovanja splošne in strokovne javnosti, odločevalcev ter lastnikov zemljišč. Kljub mnogim slabostim preteklega sistema smo avtorji članka dobrine, kot so prost dostop do obal rek in jezer ter do gozda, možnost sprehodov po gozdu in pešpoteh zunaj gozda, nabiranje gozdnih sadežev v dovoljenih količinah in podobno, prepoznali kot pomemben privilegij preteklega sistema in prednost, ki splošni javnosti ključno izboljšuje kakovost življenja, lastnikom pa ne povzroča škode. Na podobne privilegije do zemlje je opozarjal že George konec 19. stoletja (navedeno v Obeng-Odoom, 2016), Ostromova in njeni sodelavci pa se z njimi praviloma niso ukvarjali. Za ohranitev teh privilegijev je zato ključno ozavestiti javnost, da naštete dobrine niso javno dobro, torej nekaj, do česar imajo dostop vsi, in to v neomejenih količinah, temveč imajo te dobrine zaradi prostega dostopa in omejenosti lastnosti skupnih virov.

Preglednica 1: Slovarček pojmov

Izraz v slovenskem jeziku	Izraz v angleškem jeziku	Kratka razlaga	Primer
javno dobro	public good	Dobrina, do katere dostopa ni mogoče preprečiti in se njena razpoložljivost z uporabo ne manjša.	UV sevanje, mir, cesta, varnost ...
skupni vir(i)	common-pool resource(s) (CPRs)	Dobrina, do katere dostopa ni mogoče preprečiti in se njena razpoložljivost z uporabo manjša.	gozdni sadeži, pitna voda, dostop do obale, prosto dostopne zelene površine v blokovskih soseskah ...
skupno	commons	Posebna oblika zasebne lastnine v skupni rabi, ki jo upravlja skupnost po določenih pravilih; skupno so lahko skupni vir (npr. gozdni sadeži), ni pa nujno, lahko gre za povsem zasebno dobro (npr. sirarna).	vaški nasad orehov, skupna zemljišča, prostori krajevne skupnosti, skupnostni vrtički ...

Obenem moramo ozavestiti tudi lastnike, da jim lastništvo še ne podeljuje neomejene pravice uporabe naravnih virov. Zaradi želja po privatizaciji, koncesijah in licenčninah, ki zaradi gospodarskih interesov močno ogrožajo naše omejene naravne vire, se splošna javnost v Sloveniji upravičeno boji. Zgovoren odpor na takšne težnje je vpis pravice do pitne vode v Ustavo RS (Ustavni zakon o dopolnitvi III. poglavja Ustave Republike Slovenije, Ur. l. RS, št. 75/2016), vendar je treba ob tem izpostaviti, da ustavodajalec ne razume, da voda ni javno dobro, temveč omejeni naravni vir. Prav ta lastnost, ki jo slovenska javnost zaznava intuitivno, je bila gonilo prizadevanj za vpis pravice do vode v Ustavo RS. Vendar vpis vodnih virov še ne bo zaščitil, saj ti ostajajo ranljivi in omejeni. Maja in julija 2017 sta slovensko javnost pretresli dve ekološki katastrofi, ki sta poleg prsti in zraka prizadeli tudi vodne vire. Pokazalo se je, da le sprememba zakonodajnega okvira s pripadajočimi podzakonskimi akti ni dovolj. Potrebni bodo konkretne prilagoditve, jasna pravila, nadzor in ne nazadnje sankcije nad neustreznim upravljanjem vodnih virov. Pereč primer v Sloveniji je tudi spreminjanje rodovitnih zemljišč v industrijska območja. Vsaka taka investicija zahteva tehten premislek, saj so rodovitna zemljišča naši naravni viri, njihovo razvrednotenje pa nepovratno. Zaradi povečanja števila uporabnikov in nasprotij interesov so v urbanem okolju izpostavljene zelene površine ob večstanovanjskih stavbah.

S tem člankom želimo opozoriti, da nam v primeru neupoštevanja omejenosti dobrin grozita siromašenje in izčrpavanje teh dobrin ali virov. Včasih lahko siromašenje, predvsem z ekosistemskega vidika, povzroči tudi delitev virov v manjše enote. V izogib temu so predniki za uporabo omejenih naravnih virov razvili skupnostno upravljanje s točno določenimi pravicami in pravili. Razdelili so si donose, na primer drva, ne pa tudi zaloge skupnega vira, v tem primeru gozda. To potrjuje ugotovitev McKeanove (2000), da so privatizirali pravice do dobrine, ne da bi jo razdelili na manjše dele. Na tem konceptu je temeljila tudi družbena lastnina v socializmu, a s to razliko, da pravica ni bila prenosljiva in je ugasnila s prenehanjem delovnega razmerja. Sodoben in aktualen primer upravljanja skupnih virov iz urbanega prostora so blokovske zelene površine. Ponekod se stanovalci organizirajo, posadijo grmovnice in drevesa, ne da bi obenem razdelili zelenico, saj bi bil posamezen delež zemljišča premajhen za posaditev drevesa. S pravili, pogoji in sankcijami se vključijo v upravljanje svoje zelenice, ki ni javno dobro, temveč skupni vir. Kjer se stanovalci ne organizirajo, tvegajo razvrednotenje zelenih površin v svoji neposredni okolici. Skupina ljudi gre lahko še korak dlje, izbere, najame ali kupi zemljišče ter na njem zasadi orehe, kot v Čadrgu, v urbanih soseskah pa zelenjavo in sadje. Plodovi, ki dozorijo na teh zemljiščih, niso javno dobro. So tipična skupna lastnina ali skupno, a kljub temu, da se ve, kdo jih lahko koristi, imajo zaradi omejenosti dobrine v primeru prostega dostopa lastnosti skupnih virov. Podobno tudi plodovi v mestnem sadovnjaku, zasajenem v Ljubljani na Viču, ki je bil zaradi prešibkega upravljanja že nekajkrat žrtev vandalizma, čeprav je zasajen na javnih površinah, niso javno dobro, temveč so zaradi omejenosti dobrine in proste dostopnosti skupni viri. Zaradi omejenosti in proste dostopnosti tudi borovnice, gobe in kostanji v gozdu niso javno dobro, temveč skupni viri. V izogib nadaljnjim nejasnostim v zvezi z javnim dobrom, skupnimi viri in skupnim ter v podporo ustreznejšemu upravljanju smo v preglednici 1 pripravili kratke razlage ključnih pojmov.

V sklepu razprave želimo izpostaviti še vlogo lastništva. Kot je navedeno v teoretičnih izhodiščih, sta ključni lastnosti dobrin manjša/večja dostopnost in manjše/večje zmanjševanje z rabo, ne pa tudi lastništvo. Vendar se vloga lastništva uveljavi pri upravljanju, ko lahko lastnik omeji dostop do vira ali dobrine. Privatizacija omejenega naravnega vira zaradi gospodarskih interesov posameznika ali manjšine lahko vodi v izčrpavanje vira, od katerega je odvisna lokalna skupnost. Ni vseeno, kdo odloča o dostopu do vira in njegovega upravljanja. Že predniki so se zavedali, kako pomembno je, da imajo lokalne skupnosti lastništvo nad omejenimi naravnimi viri v svoji neposredni okolici. Tega se zavedajo domačini v Čadrgu, ki so z velikimi prizadevanji ohranili pravico do upravljanja vodnih

virov. Duraippah idr. (2014) omenjajo, da se v zadnjem času na Japonskem vzpostavlja koncept novega skupnega (ang. *new commons*), ko skupina posameznikov začne skupno upravljati zapuščene zaraščene površine.

7 Sklep

Analiza prostorsko-časovne odvisnosti je pokazala, da sta pretekli družbenogospodarski ureditvi nedvomno vplivali na sedanje dojemanje javnega dobra in skupnega, kar moramo upoštevati pri nadaljnjem upravljanju. Bogata zgodovina agrarnih skupnosti je v Sloveniji prek skupnih zemljišč uvedla raznovrstno upravljanje omejenih naravnih virov. Socialistična dediščina se kaže v poudarjanju pravičnosti dostopa do dobrin za vse prebivalce, ki mnoge dobrine dojemajo kot javno dobro in imajo lahko skladno s tem prepričanjem neupravičena pričakovanja. Dodaten vpliv preteklega sistema je še vedno opazen v togem in centraliziranem državnem upravljanju. Postsocialistično obdobje je prineslo denacionalizacijo, ponovno obujanje skupnostnega upravljanja omejenih virov, a tudi divjo privatizacijo različnih dobrin z željo po gospodarskih dobičkih za posameznike in manjšine. To je v Sloveniji povzročilo bojazen splošne javnosti po privatizaciji vode, kar je vodilo k vpisu pravice do vode v Ustavo RS. Po drugi strani pretirano nabiranje gozdnih sadežev in nespoštljiva raba gozdov jezita lastnike in vplivata na kostanjeve in gobarske vojne, ki so posledica omenjenih zgodovinskih dejavnikov.

Na podlagi raziskave o dojemanju javnega in skupnega dobra med domačini in strokovno javnostjo smo ugotovili, da glavno razliko med tema dvema pojmoma intervjuvanci pripisujejo lastništvu, pri čemer strokovna javnost presoja z vidika lastne soudeležbe ali neposredne koristi. Skupno dobro domačini in strokovna javnost dojemajo kot tisto, kar je last lokalne skupnosti ali ta to upravlja, kar pojem približuje pojmu skupnega. Takoj ko se lastništvo prenese na javno ustanovo (npr. občino ali ministrstvo), v očeh širše javnosti to postane javno dobro.

V izogib konfliktom, razvrednotenju omejenih naravnih virov in morebitni izgubi privilegijev, ki nam izboljšujejo kakovost življenja, si avtorji prispevka prizadevamo slovensko splošno in strokovno javnost ozavestiti o razlikovanju med javnim dobrom in skupnimi viri. Razumevanje o razlikovanju teh dveh pojmov je treba vključiti v izobraževalni sistem ter v druge izrazne oblike in vsebine. Ob podrobnem pregledu se pokaže, kako malo dobrin v resnici spada med javno dobro. Marsikateri naravni viri niso bili ogroženi več stoletij, dokler jih človek ni znal uporabljati ali pa je bila raba zanemarljiva. Dokler splošne in strokovne javnosti ne ozavestimo, da je poleg proste dostopnosti ključna lastnost skupnih virov omejenost, njihovo upravljanje ne bo ustrezno in lahko vodi v izrabo, kar bo na koncu najbolj prizadelo lokalne skupnosti, ki so odvisne od teh virov. Javnost mora razumeti, da so številne dobrine, ki jih trenutno dojema kot javno dobro, v resnici skupni viri, ki so prosto dostopni, a omejeni. Do rabe tovrstnih virov, ki nikakor ni samoumevna, mora javnost privzeti spoštljiv odnos. Le ustrezno upravljanje z jasno določenimi pravicami rabe ohranja in vzdržuje skupne vire, zato je ključno, da javnost razume 1) bistvo javnega dobra in skupnih virov ter 2) vloge skupnostnega upravljanja pri trajnostnem gospodarjenju z viri. To razumevanje bi morali s podeželja prenesti v urbana območja in ga je treba upoštevati pri upravljanju urbanih območij, kot so zelene površine ob blokovskih soseskah, javnih sadovnjakov, skupnostnih vrtov ipd. V mednarodnem okolju želimo s predstavljenim slovenskim primerom prispevati k boljšemu razumevanju človeškega vedenja in pričakovanj do javnega dobra ter skupnih virov v postsocialističnih tranzicijskih družbah. Ključno vlogo pri tem imata družbenogospodarski in politični kontekst s pripadajočimi ideologijami.

Mateja Šmid Hribar
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Geografski inštitut Antona Melika, Ljubljana, Slovenija
E-naslov: mateja.smid@zrc-sazu.si

Jani Kozina
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Geografski inštitut Antona Melika, Ljubljana, Slovenija
E-naslov: jani.kozina@zrc-sazu.si

David Bole
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Geografski inštitut Antona Melika, Ljubljana, Slovenija
E-naslov: david.bole@zrc-sazu.si

Mimi Urbanc
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Geografski inštitut Antona Melika, Ljubljana, Slovenija
E-naslov: mimi.urbanc@zrc-sazu.si

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Breda Mihelič

Pariz – meka moderne arhitekture in magnet za mlade Plečnikove študente

Naslov: Plečnikovi študenti in drugi jugoslovanski arhitekti v Le Corbusierovem ateljeju
Avtor: Bogo Zupančič
Založba: Muzej za arhitekturo in oblikovanje (MAO)
Kraj in leto izdaje: Ljubljana, 2017
Število strani: 232
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Izid knjige zaznamuje, kot je avtor zapisal v uvodu, tri pomembne obletnice: 130. obletnico rojstva Charles-Édouarda Jeannereta - Le Corbusiera, enega največjih modernih arhitektov 20. stoletja, 60. obletnico smrti Jožeta Plečnika, največjega arhitekta 20. stoletja v srednji Evropi, in 110. obletnico rojstva Edvarda Ravnikarja, vodilnega slovenskega modernega arhitekta, ki je na neki način vez med obema omenjenima.

Knjiga je rezultat poglobljenega raziskovanja doma in v tujini, natančnega pregleda obsežnega gradiva, ki je razpršeno od Ljubljane, Zagreba, Sarajeva, Beograda do Cambridgea, pomemben del hrani Le Corbusierova fundacija v Parizu. S to zanimivo temo se avtor ukvarja že več kot deset let. Tematiko je prvič predstavil leta 2007 na razstavi v galeriji Vžigalica, o njej je imel več predavanj in objavil več člankov, leta 2017 je v Muzeju za arhitekturo in oblikovanje pripravil tudi večjo razstavo *Plečnikovi študenti in drugi jugoslovanski arhitekti v Le Corbusierovem ateljeju v Parizu*.

Knjiga je prva celovita predstavitev tematike v širšem kontekstu sodobnega dogajanja na področju arhitekture doma in v tujini, predvsem v Parizu. Kot je v uvodu zapisal avtor, je namenjena predvsem strokovnjakom in poznavalcem. Temeljno vprašanje, ki si ga je zastavil, je, kakšen je bil prispevek Plečnikovih študentov in jugoslovanskih arhitektov, ki so se izpopolnjevali pri Le Corbusieru, k oblikovanju slovenske in jugoslovanske urbanistične misli in prakse pred drugo svetovno vojno in zlasti po njej.

Knjiga je razdeljena na tri dele. V prvem so predstavljeni Plečnikovi študenti v Le Corbusierovem ateljeju med letoma 1929 in 1940, v drugem delu drugi slovenski arhitekti in gradbeniki na izpopolnjevanju v Parizu med letoma 1925 in 1938, v tretjem pa hrvaški in srbski arhitekti v Le Corbusierovem ateljeju med letoma 1927 in 1937. Na koncu je dodan obsežen pregled literature in virov, ki bodo odlična pomoč nadaljnjim raziskovalcem. Knjiga je bogato ilustrirana, velik del fotografskega gradiva, ki je zbran od različnih virov doma in v tujini, je objavljen prvič.

Avtor je v prvem poglavju predstavil sedem arhitektov, ki so diplomirali pri Plečniku in so se po diplomi odpravili v Pariz, kjer so kot risarji delali v Le Corbusierovem ateljeju. Na podlagi dokumentov je omenil Miroslava Oražma, Milana Severja, Hrvoja Brnčiča, Marjana Tepino, Jovana Kruniča, Edvarda Ravnikarja in Marka Župančiča. Slovenci smo imeli s Francijo tradicionalno dobre odnose in tesne stike. V Ljubljani je bil na pobudo slovenskih intelektualcev že leta 1921, torej kmalu po ustanovitvi univerze ustanovljen Francoski inštitut. Zaradi tesnih stikov, zgodovinske povezanosti s Francijo in dobrega znanja jezika so imeli študenti dobre možnosti za potovanja, dostopne pa so jim bile tudi francoske državne štipendije, zato ni naključje, da so te možnosti tudi dobro izkoristili. Pariz je bil najzanimivejša evropska in svetovna kulturna in umetnostna prestolnica med obema vojnama ter je privlačil umetnike, arhitekte in intelektualce z vsega sveta. V dvajsetih in tridesetih letih 20. stoletja je v Parizu poleg arhitektov študiralo ali delalo veliko Slovencev, med njimi slikarja Veno Pilon in Nikolaj Pirnat, književniki Josip Vidmar, Bratko Kreft, Ciril Kosmač ter študenti drugih smeri, pravniki, inženirji, jezikoslovci in nekateri politiki. Francoski inštitut je imel bogato knjižnico, v kateri so lahko študenti prebirali najnovejše revije. Tam so se študenti, kot je v svoji knjigi zapisal Plečnikov študent Janko Omahen, prek

revij seznanili tudi z Le Corbusierom in sodobnim dogajanjem v arhitekturi, o čemer v šoli od učitelja niso veliko slišali. Plečnik je bil do Le Corbusiera in modernega funkcionalizma zadržan in je svoje študente od modernih pobud bolj ali manj odvračal, kljub temu je dogajanje v moderni arhitekturi budno spremljal, kar dokazuje med drugim tudi njegova bogata knjižnica. Njegove študente pa je sodobno dogajanje čedalje bolj zanimalo. Leta 1925 so obiskali razstavo dekorativnih umetnosti v Parizu, kjer jih je popolnoma prevzel Le Corbusierov Paviljon nove dobe (Pavillon de l'esprit nouveau).

Avtor je na podlagi zelo natančnega pregleda virov in literature doma in v tujini dokazal, da je v Le Corbusierovem ateljeju pred drugo svetovno vojno delalo sedem Plečnikovih učencev, med njimi Miroslav Oražem, Milan Sever, Hrvoje Brnčič, Marjan Tepina, Jovan Krunič, Edvard Ravnikar in Marko Župančič. Poleg njih pa še arhitekt Feri Novak, gradbeni inženir Janko Bleiweis in verjetno tudi gradbeni inženir Fran Tavčar, kar je bilo razmeroma veliko glede na arhitekte iz drugih večjih držav. Le Corbusier je slovenske študente zaradi odličnega znanja o klasični arhitekturi in risarskih sposobnosti, ki so jih pridobili pri Plečniku, zelo cenil. Avtor je natančno navedel, kdaj so posamezni slovenski arhitekti prišli v njegov atelje, koliko časa so tam delali in pri katerih projektih so sodelovali, kar je dokumentiral tudi z nekaterimi potrdili, ki jih je podpisal Le Corbusier, z načrti in skicami, ki so večinoma ohranjene v Le Corbusierovi fundaciji v Parizu, ter s fotografijami in korespondenco. Posebno poglavje je namenil tudi odnosom med slovenskimi in tujimi arhitekti v Le Corbusierovem ateljeju, ki so prihajali z vseh koncev sveta. Z nekaterimi od njih so obdržali stike tudi po vojni, tako so na primer švicarskega arhitekta Alfreda Rotha povabili, da je predaval v Ljubljani in prispeval članke za revijo Arhitekt.

Plečnikovi študenti so izkušnje, ki so jih pridobili v Le Corbusierovem ateljeju, že pred drugo svetovno vojno uporabili na številnih natečajih doma, kjer so pobrali številne nagrade, kar je avtor podrobno popisal. Med najodmevnejšimi je bil nedvomno natečaj za regulacijo Ljubljane leta 1939, na katerem sta Ravnikar in Tepina v svojih natečajnih projektih neposredno uporabila nekatere Le Corbusierove urbanistične pristope. Tudi po vojni je na področju arhitekture in urbanizma s kratkim intermezzom socialistične arhitekture prevladala Le Corbusierova smer, ki so jo arhitekti začrtali že pred vojno, kar je avtor knjige opisal v treh poglavjih. V njih je posebej izpostavil načrte Nove Gorice in Novega Beograda ter številnih arhitekturnih del v Sloveniji in zunaj nje, pisal je o vključevanju slovenskih arhitektov v mednarodne organizacije (UIA, CIAM idr.), sodelovanju na odmevnih mednarodnih kongresih in razstavah ter organizaciji arhitekturnih razstav, med katerimi sta bili posebej odmevni razstava Le Corbusier v Moderni galeriji leta 1953 in razstava Stanovanje za naše razmere v nedokončani stavbi Kozolec leta 1956.

V drugem delu knjige je avtor predstavil arhitekte (Plečnikove študente), ki so se izpopolnjevali v Parizu, a niso delali v Le Corbusierovem ateljeju, in sicer Dušana Grabrijana, Borisa Kobeta in Gizelo Šuklje. Dodatno je predstavil še arhitekta Ferija Novaka ter gradbena inženirja Janka Bleiweisa in Frana Tavčarja, ki so delali v Le Corbusierovem ateljeju. Vsakega posebej predstavi z deli, ki odražajo vpliv Le Corbusiera.

V tretjem delu knjige pa je podobno predstavil še sedem hrvaških in srbskih arhitektov (Zvonimir Kavurić, Ernest Weissmann, Jurij Neidhardt, Ksenija Grisogono, Krsto Filipović, Milorad Pantović in Branko Petričić), ki so prav tako delali v Le Corbusierovem ateljeju in s katerimi so bili slovenski arhitekti med obema vojnama precej povezani tako prijateljsko kot strokovno prek revije Arhitektura, ki je izhajala med letoma 1931 in 1934 kot glasilo slovenskih, hrvaških in srbskih arhitektov.

Knjiga Boga Zupančiča je izjemno dragocen dokument obdobja med obema vojnama, ko se je ob boku velikega Plečnika rojevala nova mlada moderna arhitektura, ki je kljub navideznemu odklonu od velikega učitelja v resnici dragoceno znanje, ki jim ga je posredoval Plečnik, nadgradila z novimi idejami, ki jih je prepoznala v delu Le Corbusiera in pionirjev modernega gibanja. Avtor je zelo natančno opisal pot mladih slovenskih arhitektov iz domačega arhitekturnega okolja, prežetega z osebnostjo Jožeta Plečnika v svetovno umetnostno in kulturno prestolnico, polno novih izzivov, kjer je v 20. letih prejšnjega stoletja zavladal povsem nov duh moderne, prežet z optimizmom po koncu prve svetovne vojne in željo po izboljšanju sveta, k čemur bi lahko, tako so verjeli mladi arhitekti, prispevala tudi arhitektura.

Breda Mihelič, Urbanistični inštitut Republike Slovenije, Ljubljana, Slovenija
E-naslov: breda.mihelic@uirs.si

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Frank VAN DER HOEVEN
Alexander WANDL

Hotterdam: Mapping the social, morphological, and land-use dimensions of the Rotterdam urban heat island

Climate scientists forecast that heat waves will occur more often in the Netherlands in the coming decades. The Hotterdam study accordingly measured urban heat and modelled the surface energy balance in the Dutch city of Rotterdam. It identified in detail the city's social, morphological, and land-use dimensions using a geographic information system (GIS), 3D models, and satellite images. It used hierarchical and multivariate regression analyses to determine the links between temperatures and the surface energy balance on the one hand, and social, morphological, and land-use aspects on the other. The Hotterdam study did establish a link between the urban heat island effect in Rotterdam and the health of its population. It also statistically explained the high rate of mortality among seniors seventy-five and over during the summer of 2006. The spatial concentration of senior citizens, the average age of the buildings they live in, and the sum of the sensible heat flux and storage heat flux play a large role. Imperviousness, the leaf area index, the building envelope, surface water, and shade are the dimensions that best explained the Rotterdam urban heat island. We mapped these aspects in two heat-maps that help in setting priorities for implementing climate adaptation measures.

Keywords: urban heat island, morphology, land use, elderly, climate adaptation, Rotterdam

1 Introduction

1.1 Context

The European heat wave of 2003 was something of a wake-up call. The heat struck France particularly hard that August. In a matter of two weeks, the national health system collapsed, and over fourteen thousand citizens were dead. The city of Paris felt the impact of an estimated five thousand heat-related deaths, predominantly among its senior citizens. The research on cities like Paris and London that followed in the years after underscored that "urban heat islands have significant implications for the comfort, energy and health of citizens" (Mavrogianni et al., 2011). The case study of Paris provided valuable insights into the way public health, social factors, housing conditions, environmental factors, and urban heat islands aggravate mortality during a severe heatwave (Vandentorren et al., 2006). The University College London (UCL) Lancet Commission identified urban heat islands as one of the leading challenges in shaping cities for health. The Lancet Commission stated in this context that cities are complex systems in which morphology, land use, and spatial location play key roles (Rydin et al., 2012).

As result of the urban heat island effect, a city may be warmer at times than its surrounding area, especially at night. In the winter this will result in a positive effect. The city will be less cold, so temperatures will be less extreme. In the summer, however, a heat island will aggravate the health of citizens, especially seniors. In this context it is important to emphasize that both heatwaves and urban heat islands are constrained to specific areas; they are regional occurrences that impact local areas. While the 2003 heatwave had a devastating impact on French cities, the Dutch cities of Amsterdam, Rotterdam, and The Hague avoided this natural disaster. Statistical data do not show much of an increase in mortality in these cities, which is in sharp contrast to the heatwave that hit the same region in 2006. July 2006 became the warmest month on record for the Netherlands, resulting in one thousand deaths. Because heatwave events are regional and cities are complex local urban systems, research into the effect of urban heat islands usually explores one city at a time and could best be classified as a collection of case studies. The Hotterdam research project is a case study of the urban heat island effect in the Dutch city of Rotterdam with a distinct focus on the city's social, morphological, and land-use aspects that contribute to the urban heat island effect as evidenced by the excess mortality of elderly citizens during heatwaves.

1.2 Relevance and urgency

The Hotterdam study is relevant and urgent because of three parallel developments: a changing climate, an ageing population, and enduring urban growth in the Randstad Holland conurbation. These three developments are expected to increase the potential impact of the urban heat island effect on respective societies.

In 2014 the Royal Netherlands Meteorological Institute (Dutch *Koninklijk Nederlands Meteorologisch Instituut*, KNMI) published four new scenarios on how the climate in the Netherlands might develop in the future: KNMI'14. These scenarios include predictions for 2050 and 2085. On their basis, the KNMI predicts that the number of hot summer days will increase, as will the likelihood of heatwaves. Air quality is forecasted to deteriorate during warm summers, and long periods of drought may occur. The rise in temperature will lead to more deaths during the summers. Hot and problematic summers will become more frequent than currently (KNMI, 2014).

Statistics Netherlands (Dutch *Centraal Bureau voor de Statistiek*, CBS) issued a forecast on the development of the Dutch population between 2014 and 2060 (van Duin & Stoeldraijer, 2014). By 2040 the number of seniors sixty-five and above will quickly rise from 2.9 million to 4.8 million. After that their share will stabilize at just over a quarter of the population. According to the Netherlands Environmental Assessment Agency (Dutch *Planbureau voor de Leefomgeving*, PBL) and the Netherlands Bureau for Economic Policy Analysis (*Dutch Central Planning Bureau, CPB*), the percentage of seniors seventy-five and above will rise even more strongly (de Jong & Daalhuizen, 2014). In 2012, 7.1% of the population was seventy-five or older. By 2040 this share in the overall population will have grown to 14.5%. Those that are most vulnerable to urban heat will double in the next decades. There is sufficient evidence to attribute the excess mortality of seniors to urban heat islands (Vandentorren et al., 2006; Heaviside et al., 2016).

The overall population in Randstad Holland will continue to grow as well. The CBS and PBL (2011) forecast an increase of 700,000 inhabitants by 2025 and another 400,000 between 2025 and 2040. The cities in Randstad Holland are likely to become less green and more impervious, potentially resulting in increased (atmospheric and surface) urban heat islands in cities such as Amsterdam, Rotterdam, and The Hague.

1.3 Atmospheric and surface urban heat islands

The atmospheric urban heat island refers in this context to the air temperature differences between cities and their surrounding (green) areas. Such differences can reach up to 10 °C and occur especially after sunset. In the daytime these temperature differences are often smaller. During the day the city accumulates heat in buildings, pavements, surface water, and the

ground. After sunset the urban area releases this heat slowly because of the heat capacity and thermal conductivity of the construction materials used in the built environment, predominantly concrete and asphalt. The natural cooling effect of vegetation is lacking in cities because pavement and buildings have replaced much of the original green areas.

The surface urban heat island refers to the temperature differences between parts of the city's surface (and not air): between asphalt roofing and treetops, and between pavement and surface water. These temperature differences are often more substantial and occur during the daytime. In the daytime, the atmospheric heat island and the surface heat island display vastly different spatial patterns. In the night, their spatial patterns align when the city's surface is the only remaining source of heat. Data on the surface heat island can be used to understand the energy processes that take place in urban areas, also known as the surface energy balance (Harman, 2003).

1.4 Research questions

The Hotterdam research project looked into the urban heat island effect in the city of Rotterdam from the perspective of climate adaptation. What insights could support altering the behaviour of residents, improving buildings, and making changes in the built environment? The Municipality of Rotterdam commissioned the research. It asked for insights into the extent of the urban heat island effect in Rotterdam, the impact on its citizens, and the role that morphology, land use, and spatial location play. The project addressed four specific research questions:

- Does the urban heat island effect impact all parts of the city of Rotterdam equally, or are distinct districts more affected than others; if so, which areas are these?
- Does a link exist between the urban heat island in the city of Rotterdam and the mortality rate among senior citizens during heatwaves?
- Can the differences in the urban heat island effect between districts be explained by the morphology and land use of the city of Rotterdam?
- Do the social, morphological, and land-use dimensions of the urban heat island effect result in coherent spatial patterns that allow an area-oriented approach in the urban planning and management of the city?

2 Research design

The research design of the Hotterdam study included three main steps. The first step was collecting data on the urban heat island in the city of Rotterdam, social data on its citizens and housing, and data on the morphology and land use of Rotterdam. The second step involved processing the data and mapping it in ArcGIS, using a fixed grid. The third step was analysing the links between urban heat, excess mortality, morphology, and land use by conducting multivariate regression analyses on the underlying numeric data per grid cell. The outcome of the regression analyses was used to perform cluster analyses, resulting in so-called social and spatial heat maps. We explain the three steps below in more detail.

2.1 Data collection

The project acquired data sets that helped describe the range and severity of the urban heat island, the vulnerable segment of the Rotterdam population (including factors that puts it additionally at risk), and the city's morphology and land use.

A (historical) data set that describes the weather in the various neighbourhoods of the city of Rotterdam does not exist. The KNMI does take measurements at Rotterdam The Hague Airport; however, at a requisite distance from built-up areas. Although their dataset is not sufficient to describe the temperature differences within the city, it was used to identify the critical heatwave event that had a measurable impact on the health of the elderly citizens living in Rotterdam in July 2006.

To overcome the lack of fine temperature measurements, several researchers in this field use remote sensing or crowdsensing to more accurately map the urban heat island. Dousset and Gourmelon (2003) pioneered the use of satellite imagery for visualising urban heat islands. They documented the Paris urban heat island during the heatwave of August 2003 and checked this data against the excess mortality that resulted from the meteorological disaster (Dousset & Gourmelon, 2003; Dousset et al., 2011). Chapman et al. (2017) recently applied crowdsensing in the case of the London urban heat island using Internet-of-Things devices owned by the public: Netatmo urban weather stations. The Hotterdam project had us obtain Landsat 5 and Landsat 8 satellite imagery from USGS's EarthExplorer repository and pre-process the images by geo-rectifying and atmospherically correcting them. Landsat images are available as open access downloads, much like the satellite images from the European Space Agency.

Next, we measured the outdoor air and indoor air temperature, using a citizen science approach. We recorded the temperature in one thousand Rotterdam homes and at three hundred public spaces in the summer of 2014 (van der Hoeven et al., 2014). The temperatures were taken using low-cost sensors commonly used in the transport sector: the PakSense UltraContact temperature monitoring label. The typical temperature accuracy

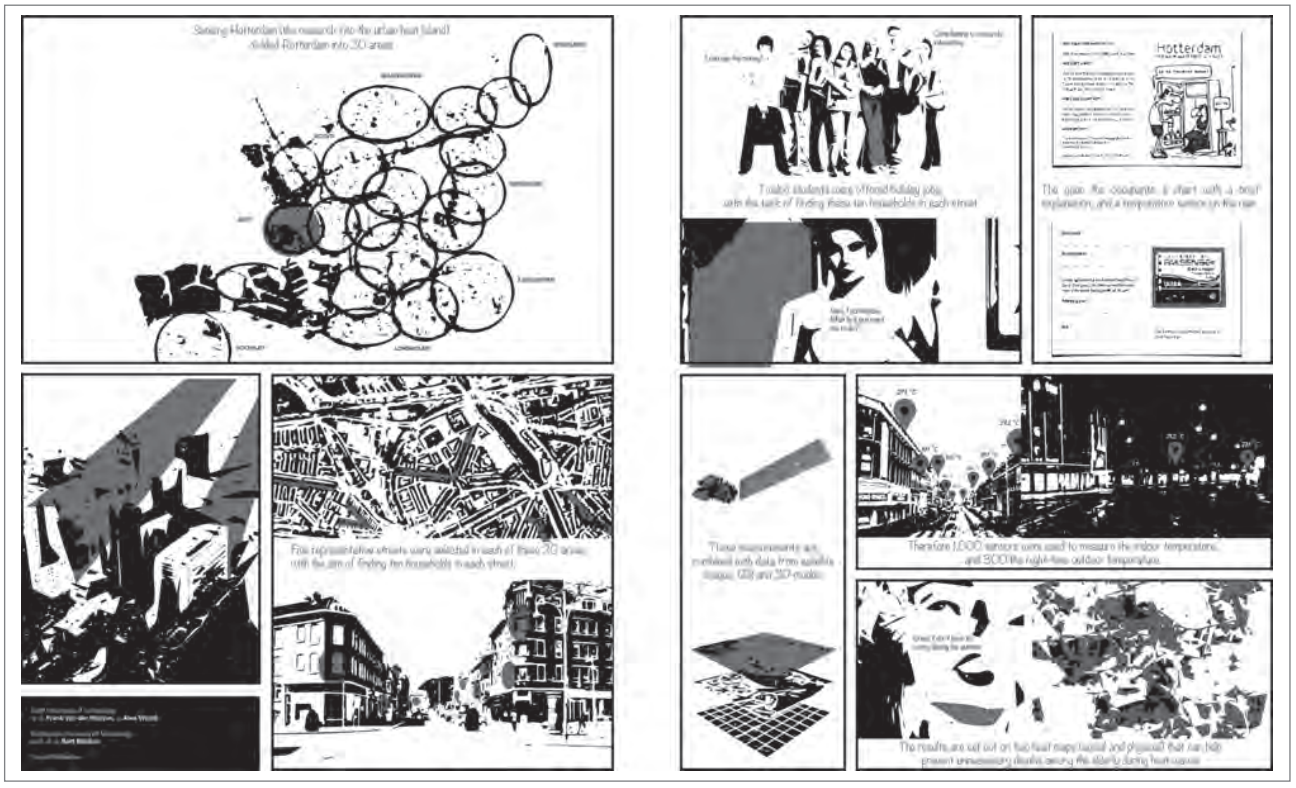

Figure 1: Sensing Hotterdam: storyboard that outlines the crowd-sensing (author: Frank van der Hoeven).

of these sensors is ± 0.5 °C, when operating between −10 °C and 30 °C. Ten students were assigned to find a hundred participants each. Each student visited five selected streets in two selected neighbourhoods. Going from door to door, they were assigned to find ten participants on each street. The students briefly explained the aims of the research to the resident and handed out simple instructions together with the sensor. The residents were asked to place the sensors in their living rooms, out of the sunlight and away from heat sources such as televisions or computers. Two months after they distributed the temperature sensors the students collected them by revisiting the participating citizens. If the citizens were not at home, students visited them a second time. If they were still not at home, the students left an envelope behind that the residents could use to return the sensor. The sensors took readings from the end of July until mid-September 2014.

During the same period we measured the outdoor temperature with the same type of sensors. The authors placed three sensors on each of the one hundred streets, using a total of three hundred sensors. A small magnet was attached to the sensor. Using this magnet we attached the sensors to street and traffic signs two metres above ground level, on one side of the street in a row. The sensors measured the outdoor temperature on the same streets where residents had been approached to take the indoor temperature readings. This made it possible to compare the measurements.

The data specialists of the Municipality of Rotterdam acted as brokers between the authors and various agencies and provided us with data from several sources:

- Population data from the Rotterdam municipal personal data records;
- Land use from the Rotterdam GIS system;
- The population data from Statistics Netherlands;
- The Current Dutch Elevation Map (AHN);
- The Basic Registration of Addresses and Buildings (BAG) from the cadastre;
- The topographical map of the Netherlands (TOP10NL) from the cadastre; and
- Energy labels for buildings from Bespaar Lokaal.

2.2 Processing and mapping

We built a geodatabase in ArcGIS in which we collected all relevant information. For each hectare in Rotterdam, for each grid cell of 100 × 100 m, we generated numeric data to be used in the third step of the methodology: the multivariate regression and cluster analyses. The grid we applied is the smallest spatial unit for demographic data used by Statistics Netherlands (CBS). It also resembles the resolution of the infrared data in Landsat satellite images (120 × 120 m). A smaller grain size would not have produced more accurate results.

Figure 2: The surface energy balance in formula (a) and graphic (b) (author: Frank van der Hoeven).

Note: Q* = net solar radiation received by the earth's surface, QE = energy consumed through evaporation (by water and greenery), QH = sensible heat (conversion of heat from surface to air), QS = energy absorbed by the ground, buildings, and surface water.

In the case of Hotterdam, we included in our research design the use of geo-located health data, which was provided by the municipal statistical office. Using health data is often complicated because of privacy concerns. Adhering to the grid size of 100 × 100 m allowed us to work at a high spatial resolution while it was not necessary to receive or display private data on individual citizens. By removing citizens' personal information, we were able to store the datasets as open data. In the end we displayed the data as a categorized set of maps: the so-called Atlas, which again used a resolution of 100 × 100 m.

2.2.1 Heat

With the help of the KNMI dataset, we made an overview of the average maximum temperatures in June, July, and August 2000 up to 2013. These were checked against the number of deaths in Rotterdam among seniors seventy-five and over (data provided by the CBS) to identify critical heatwave events.

In the middle of September 2014, we recollected eight hundred out of the one thousand temperature sensors from residents. Two hundred participants were not at home when we revisited or did not respond to our requests to send the sensors back. We recollected two hundred out of three hundred sensors placed in public spaces. The other one hundred sensors had disappeared. We did, however, anticipate such a loss by putting three sensors on each street. In the end we had covered almost every street with at least one sensor. The data from the sensors were manually retrieved and entered into the ArcGIS database.

We used remote sensing to determine the city's surface temperature. We obtained a Landsat 5 image that NASA took during the extreme heat wave event in 2006. The image was taken on 16 July that year and portrays the city of Rotterdam after an extensive accumulation of heat in the ground, surface water, pavements, and buildings. The infrared band of the Landsat 5 image (Band 6) was used to determine land surface temperature. We atmospherically corrected the band with the use of NASA's online Atmospheric Correction Parameter Calculator (Barsi et al., 2005). This was translated into a land surface temperature image (Yale Center for Earth Observation, 2010) using an open source application developed by the European Space Agency: BEAM-VISAT (currently replaced

by SNAP). We included the surface temperature map in the ArcGIS database.

The same Landsat 5 image was used to model the surface energy balance. An application called ATCOR2 was used to determine the surface energy balance. ATCOR2 (originally developed at the German Aerospace Centre) produces images of the net radiation, the sensible heat flux, the latent heat flux, and the storage heat flux. Net radiation is the absorbed shortwave solar radiation plus the longwave radiation that is emitted from the atmosphere minus the longwave radiation that is emitted from the surface. Sensible heat flux is the radiation that heats up the air. Latent heat flux is the energy that facilitates evapotranspiration from plants and evaporation from surface water. Storage heat flux is the radiation that warms up buildings, surface water, and the ground. We included the net radiation, sensible heat flux, latent heat flux, and storage heat flux maps in the ArcGIS database.

2.2.2 Socio-spatial dimensions

Mortality among seniors, especially those over seventy-five, increases during heatwaves. The spatial distribution of seniors and the urban conditions that influence their mortality vary throughout the city. We again used the hectare grid to create maps on:

- The concentrations of citizens seventy-five years old living in Rotterdam;
- The number of deaths that occurred in July 2006 in the age group 75+;
- The number of deaths that occurred on average in the age group 75+ in July over the period 2000–2013;
- The difference between the number of deaths per hectare that occurred in July 2006 and the average number of deaths per hectare that occurred in July from 2000 to 2013, resulting in the 2006 excess mortality per hectare due to (urban) heat.

The age of homes and the level of their insulation determine in part the likelihood of seniors dying prematurely (Vandentorren et al., 2006). Considering that homes act as filters between senior citizens and ambient outdoor temperatures, we used two datasets that could function as a possible indicator of the (energy) quality of such buildings: energy labels and building age. We calculated averages for each hectare.

2.2.3 Spatial dimensions

We based the maps on morphology and land use on three types of data: data derived from a 3D model of the city of Rotterdam, satellite imagery, and data that we obtained from the municipal GIS system.

Imperviousness, the leading cause of the urban heat island, was determined through a particular procedure to treat satellite imagery: spectral unmixing. The satellite images used in the case of the Rotterdam analysis were a Landsat 5 image (TM) that NASA took on 16 July 2006 and a Landsat 8 image (OLI) taken on 22 July 2014. Surface albedo, the normalized difference vegetation index (NDVI), and the leaf area index (LAI) were produced using ATCOR2. Both the NDVI and the LAI are by-products of this software's atmospheric correction procedure. The TOP10NL map was used to calculate the percentage of surface water.

The building envelope index, the building volume, the sky-view factor, and shade were based on a 3D model based on the Dutch Elevation Dataset 2 (AHN-2). We considered building volume as an indicator of the capacity to store heat, while we hypothesized that the building envelope index (the total surface of roofs and facades per hectare) might explain the heat exchange between buildings and their surroundings. We calculated the sky-view factor using the SVF Computation Code, which was developed by the Research Centre of the Slovenian Academy of Sciences and Arts (Zakšek et al., 2011).

These actions resulted in maps concerning the impervious surface, surface water, surface albedo, vegetation (NDVI and LAI), shade, sky-view factor, building volume, and building envelope. All maps were again included in the ArcGIS database and expressed in ratios, percentages, and numeric values per hectare.

2.3 Multivariate regression analysis and cluster analysis

Daniele Vettorato (2010) pioneered the evaluation of the link between morphology / land use and the land surface temperature, using remote sensing, multivariate regression analysis, and GIS. His case study of the city of Trento, Italy, provided the initial research design for the Hotterdam research project.

We determined links between heat (surface energy balance, temperatures) and the social-spatial dimensions through multivariate regression analysis and hierarchical regression analysis. The first step was to analyse which temperatures / surface energy balance indicator best explained the excess mortality among seniors seventy-five years and older in Rotterdam in July 2006. The second step was to link the indicator that we would find to the morphological / land-use dimensions of the city. We clustered the social and morphological / land-use dimensions that were statistically significant and incorporated these in the social and spatial heat maps. Those heat maps and the underlying data help to understand the vulnerability

Table 1: Summer 2006 and average summer (2000 – 2013) in Rotterdam, average maximum temperature, and number of deaths among those seventy-five and over.

	June		July		August	
Year	Average max. temperature	Deaths of people 75+	Average max. temperature	Deaths of people 75+	Average max. temperature	Deaths of people 75+
2006	21.3 °C	308	27.8 °C	385	20.5 °C	293
Average 2000 –2013	20.7 °C	298	22.4 °C	310	22.3 °C	292

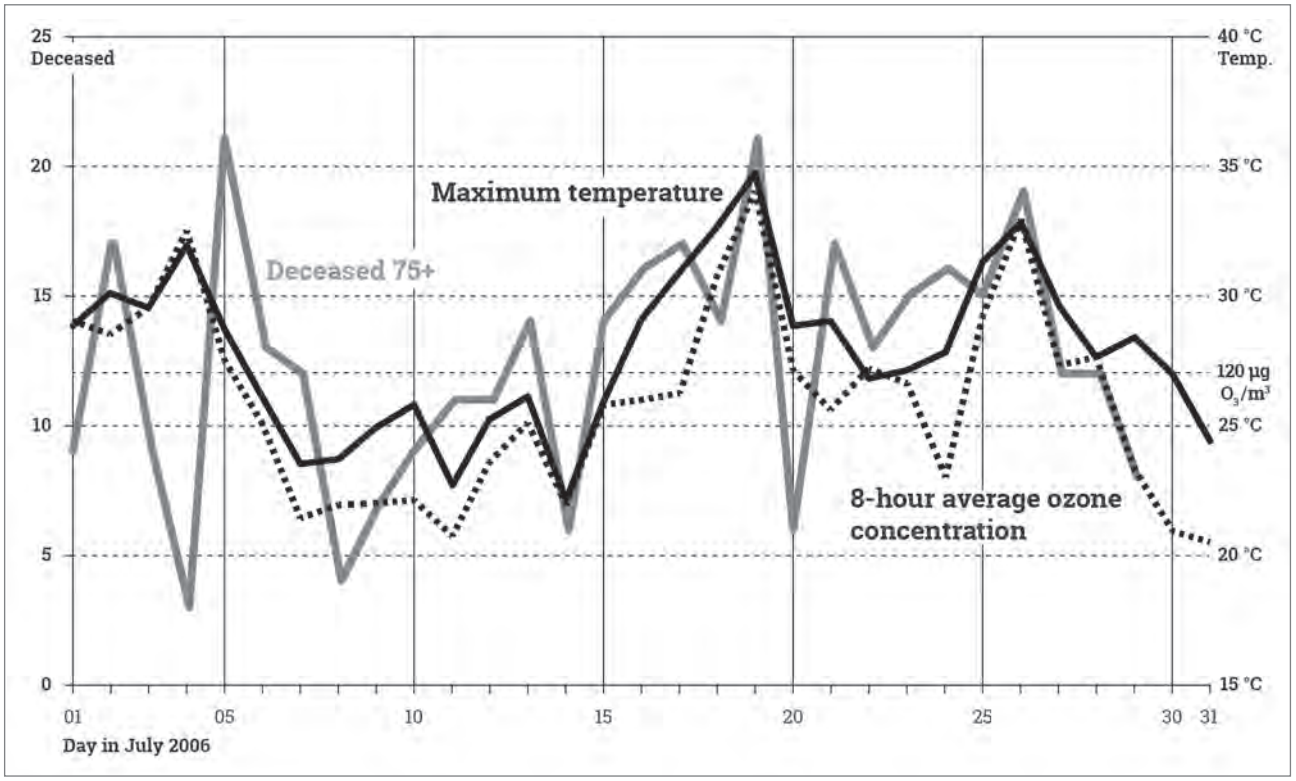

Figure 3: The 2006 heat wave in Rotterdam, deaths of seniors seventy-five and over, maximum daytime temperature (in °C) and ozone (source: van der Hoeven & Wandl, 2015c).

of Rotterdam's senior citizens to the urban heat island effect during heatwaves.

We first used hierarchical multiple regression analysis for all hectares in the research area to establish which of the aspects improve the prediction of all the deceased inhabitants seventy-five and over. We added to the model outdoor and indoor temperature, surface temperature, net radiation, sensible heat, latent heat, storage heat flux, energy labels, and building ages. Next, we ran a multiple regression analysis to predict the urban heat island based on the spatial / morphological dimensions of the city of Rotterdam. Here we added to the model impervious surface, surface water, surface albedo, vegetation (NDVI and LAI), shade, sky-view factor, building volume, and building envelope. The assumptions of linearity, independence of errors, homoscedasticity, unusual points, and normality of residuals were met. Finally, we used two-step cluster analyses based on the results of the regression analyses for all inhabited grid cells across the city. The analyses led to distinct clusters (or typologies) that became the basis for the social and a spatial heat maps.

3 Results

3.1 What a future Rotterdam summer may look like: July 2006

Based on KNMI and CBS data, we found that July 2006 was the summer month with the highest average maximum temperature in Rotterdam (27.8 °C) and the highest mortality rate among citizens seventy-five and over, compared to the months of June, July, and August from 2000 to 2013. July 2006 became the hottest month in three hundred years of recorded Dutch weather history. The CBS (2006) reported that one thousand

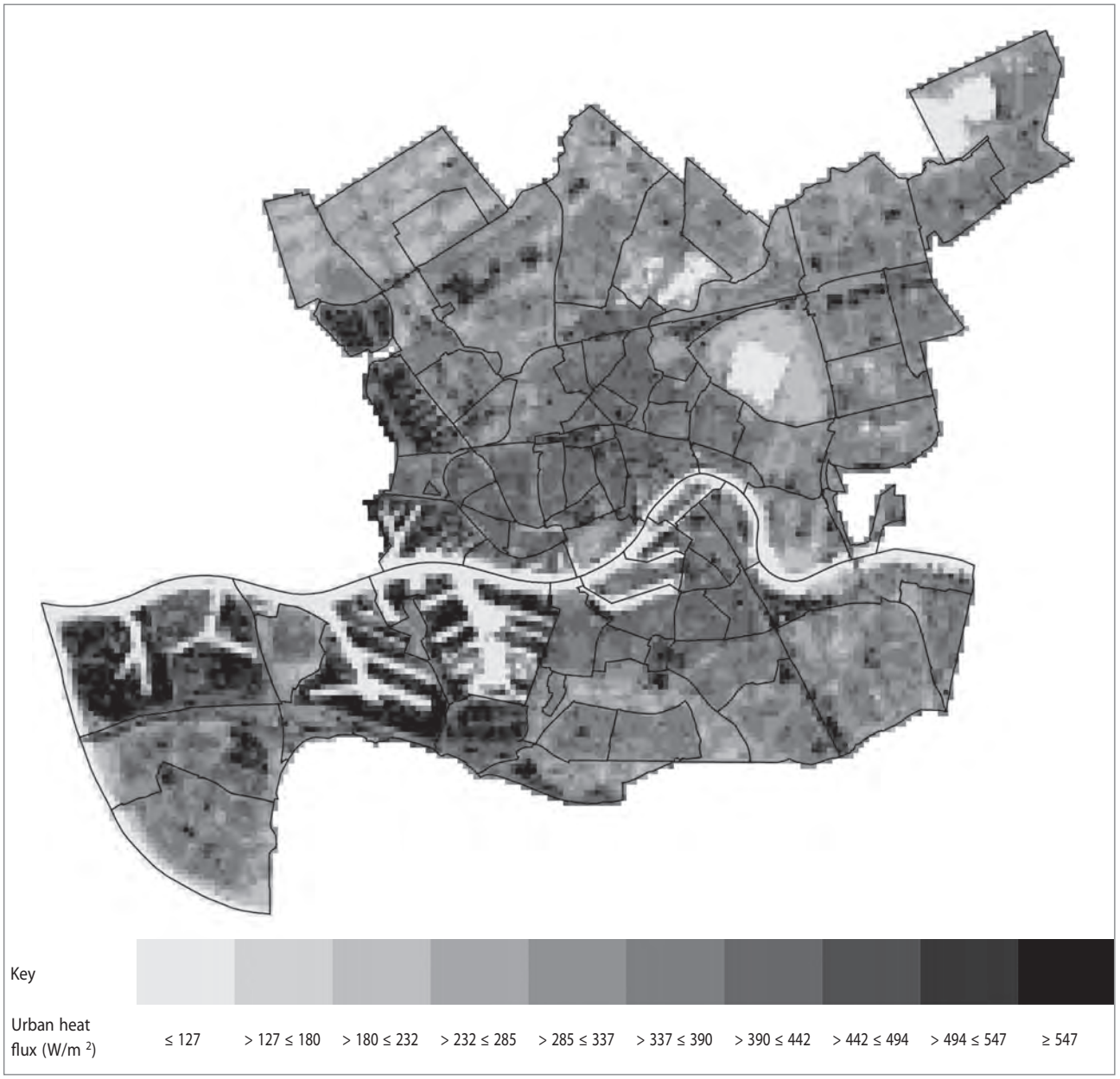

Figure 4: The sum of the sensible and storage heat fluxes, 16 July 2006 (author: Frank van der Hoeven).

more Dutch citizens than average died during July 2006. With one thousand deaths as the result of the record heat, the Netherlands was placed third in the world's meteorological disaster rankings in 2006 (CRED, 2016). Reviewing these facts made us decide to work with July 2006 as a model for future Rotterdam summers. The city of Rotterdam registered seventy-five more deaths among seniors in July 2006 than in an average July (as compared to 2000 to 2013). Compared to the mean over the period 2007 – 2013, this figure would even be as high as ninety additional deaths.

The overview of the day-by-day data for July 2006 shows that the peak in mortality rates among senior citizens in Rotterdam occurred two to three days after the peak in temperature, similar to the observation of the CBS back in 2006. The concentrations of ozone peaked on the same days as the outdoor temperature. The data at this point, however, are not sufficiently precise to correlate with the increased mortality. Ozone is only measured at three locations in the city of Rotterdam. However, there is a real possibility that the health impact of the 2006 heat wave was (in part) caused through the increased concentration of ozone.

The black line shows the maximum daytime temperature. The dashed line shows the concentrations of ozone. On the right is the European target value of 120 μg per cubic metre of air. The grey line shows the mortality rate among those seventy-five and over. The figures for the mortality rate have been shifted

Figure 5: Excess mortality seventy-five and over, July 2006 in absolute numbers (author: Frank van der Hoeven).

backwards by two days, given the time lag. This shift brings together the peaks in temperature, mortality, and ozone

3.2 Atlas

The second step in the research design was the processing and mapping of the city of Rotterdam's heat, social characteristics, and morphological / land-use dimensions. This resulted in an ArcGIS database published as an atlas (see van der Hoeven & Wandl, 2015c). We show two maps in closer detail: the sum of the sensible and storage heat fluxes (Figure 4) and excess mortality among those seventy-five and over (Figure 5). The most prominent case where climate aspects were mapped to visualize and understand its consequences for urban and spatial planning was the *Klimafibel* 'Climate Booklet' (Ministerium für Verkehr und Infrastruktur Baden-Württemberg, 2004), which we took as an example.

3.2.1 Heat indicators

We explored the Rotterdam urban heat island by mapping four potential indicators: the outside and inside air temperature (crowd sensing), the land surface temperature (remote sensing), and the surface energy balance (ATCOR2 analyses based on remote sensing). The data on the surface energy balance, the surface temperature, and the air temperature all point to an apparent heat island effect in Rotterdam. The surface heat island is strongest in the port, industry, and business areas. The

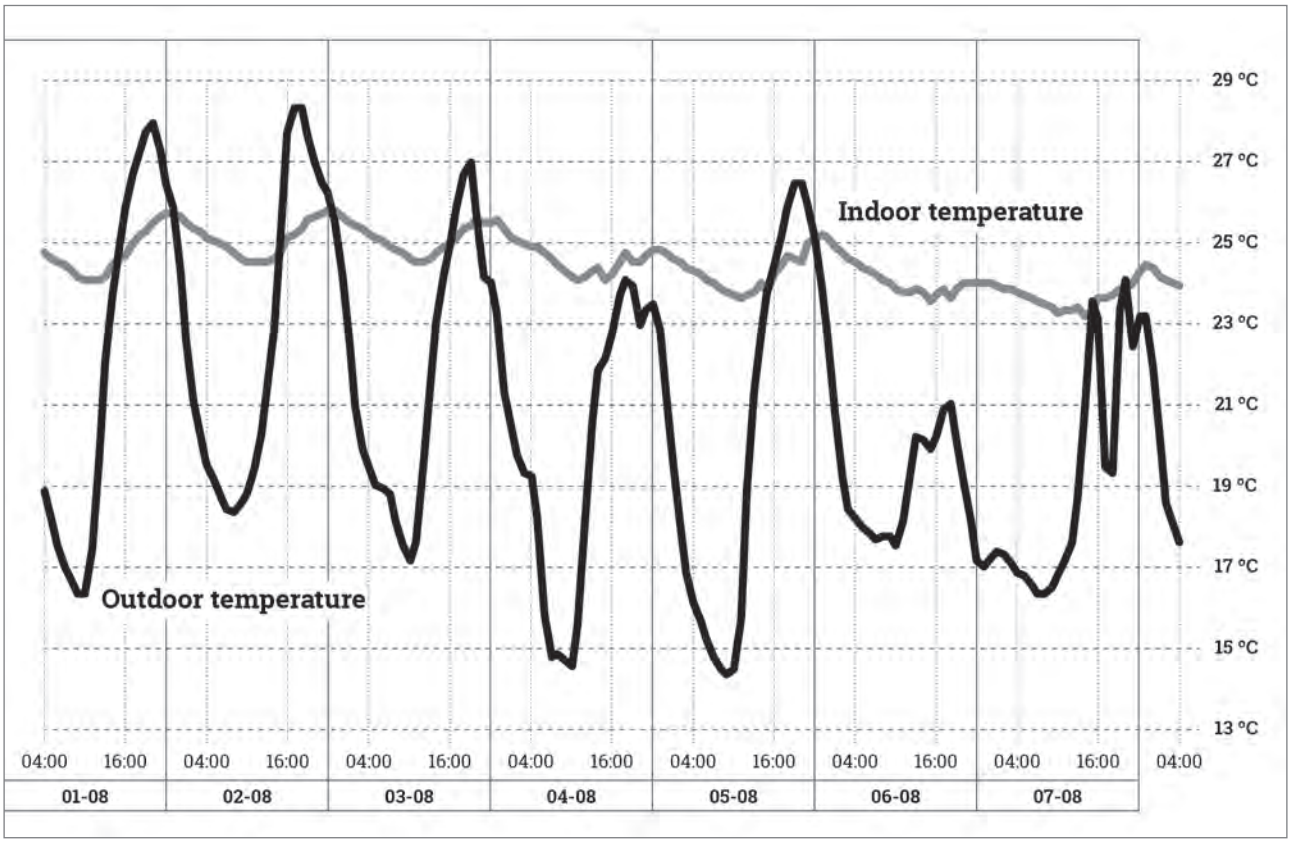

Figure 6: Air temperature measured in selected homes and streets in Rotterdam. The diagrams show the averages of all eight hundred indoor (grey line) and two hundred outdoor temperature (black line) readings in the first week of August 2014 (source: van der Hoeven & Wandl, 2015c).

city centre and the older, densely built-up residential districts in northern, southern, and western Rotterdam are exposed to a significant atmospheric urban heat island effect.

The results from the crowdsensing measurements were mixed. We encountered sufficient willingness to participate in the study and did not experience difficulty in finding one thousand participants. However, by the time all of the sensors were distributed it was late July, and August 2014 would turn out to be the coldest August in ninety years. The data we collected do provide leads for further research, but they do not represent the heatwave event we hoped for. They did not even resemble an average Dutch summer.

We displayed the averages of measurements of all sensors taken during the first week of August (temperatures above 25 °C) in Figure 6. The air temperatures inside homes are on average higher than those taken in the corresponding streets, except for the daily afternoon peaks of the outdoor air temperature. The indoor fluctuations are modest compared to the outdoor temperature differences during the day. The outdoor environment seems to provide a sufficient cooling effect so as to reduce the indoor temperatures during most of the day. Comparing the measurements at an urban scale reveals that the indoor temperatures show less spatial coherence than the outdoor temperatures. The results of our heat analysis are maps that visualize air temperatures (outdoor and indoor), surface temperatures during the daytime, net radiation, latent heat flux, sensible heat flux, and storage heat flux.

3.2.2 Socio-spatial dimension

Processing and mapping the social dimensions of urban heat resulted in five maps relating to July 2006:

- The spatial distribution of seniors seventy-five and over;
- The mortality rate of seniors seventy-five and over;
- The above-average mortality rate;
- The age of the buildings; and
- The average building energy labels per hectare.

The vulnerable group of citizens seventy-five and over is strongly concentrated in the post –Second World War districts: Schiebroek, Ommoord, IJsselmonde, Zuidwijk, Pendrecht, and Hoogvliet. Here many old people's homes and care homes are located. The above-average mortality rate during the July 2006 heat wave shows a pattern that is more spread out (Figure 5). We need more indicators to explain the mortality of seniors than merely the spatial concentration of those seventy-five and over.

Table 2: Full details on each regression model.

Variable	No. of deceased 75+					
	Model 1		Model 2		Model 3	
	B	β	B	β	B	β
Constant	0.048**		−0.043**		−0.58**	
No. of 75+ (2006)	0.002**	0.095	0.002**	0.775	0.001**	0.652
Building age			0.000066**	0.213	0.000034**	0.108
Urban heat flux (2006)					0.000011**	0.232
R^2	0.819		0.847		0.859	
F	320.6		193.6		140.2	
ΔR^2	0.816		0.843		0.853	
ΔF	320.6		12		5.9	

** $p < .005$

Citizens 75+/ha	77	4	5	4	2	1
Age of buildings (years)	36	85	59	27	23	88
Urban heat flux (W/m ^{2})	363	411	353	396	314	294

Figure 7: Social heat map: the spatial pattern of the vulnerability of the elderly to the urban heat island effect in the city of Rotterdam (source: van der Hoeven & Wandl, 2015c).

Table 3: Regression coefficients and standard errors.

Variable	B	SE_B	β
Constant	281.3	2.6	
Water	−0.011	0.0002	−0.313**
Imperviousness	217.8	2.708	0.680**
Leaf area index	−0.13	0.001	−0.077**
Building envelope	−0.0002	0.0001	−0.005**
Shade	−1.034E-06	4.2475E-08	−0.086**

Note: ** $p < .005$ B = unstandardized regression coefficient, SE_B = standard error of the coefficient; β = standardized coefficient. Dependent variable: urban heat flux.

Imperviousness	0.80	0.59	0.58	0.39	0.37	0.36	0.09	0.06
Foliage (leaf area index)	249	350	557	1,014	1,056	262	2,074	27
Building envelope (m ^{2}/ha)	1,261	8,136	4,269	1,139	663	732	136	23
Surface water	3%	2%	4%	7%	8%	54%	8%	96%
Shadow	2.4	2.8	3.9	1.4	4.5	2.9	2.8	2.5
Urban heat flux (W/m ^{2})	456	406	375	324	316	311	242	119

Figure 8: Spatial heat map: the spatial pattern of land use and urban form that contributes in a greater or lesser degree to the urban heat island in the city of Rotterdam (source: van der Hoeven & Wandl, 2015c).

A multivariate regression analysis was used to explore where in Rotterdam vulnerability to heat leads to problems for seniors. In July 2006, 385 elderly citizens died, whereas we can only consider seventy-five to ninety deaths as excess mortality. We used hierarchical multiple regression analysis for all hectares to establish which of the social aspects would improve the prediction of the number of deceased inhabitants that were seventy-five or older. Added to the model were outdoor and indoor air temperature, surface temperature, net radiation, sensible heat flux, latent heat flux, storage heat flux, energy labels, and building age.

The full model using the number of inhabitants seventy-five and over, the sum of sensible heat and storage heat flux, and the mean building age was statistically the most significant in predicting the number of deceased citizens seventy-five and over. The addition of the sum of sensible heat flux and storage heat flux to predict the number of deceased inhabitants seventy-five and over led to a statistically significant increase in R^2 of 0.050, $F(2, 71) = 4.2147$, $p < 0.05$. The addition of building age to the prediction of deceased 75+ (Model 3) also led to a statistically significant increase in R^2 of 0.093, $F(1, 95) = 8.699$, $p < 0.005$. See Table 2 for full details on each regression model for the number of deceased inhabitants seventy-five years and over.

A two-step cluster analysis for all inhabited grid cells across the city used the outcome of the regression analysis: the number of inhabitants seventy-five or over, the mean age of buildings, and the sum of sensible heat and storage heat flux. That cluster analysis resulted in six clusters (or typologies) that are shown here on the map (Figure 8), together with a table explaining the underlying values. The distribution of seniors in Rotterdam still reflects the custom of the Dutch to concentrate their seniors in care institutions (located in black hectares on the map). These spatial pockets require special attention. The neighbourhoods around the centre of Rotterdam (north, south, and west) need a policy response as well. These districts may have fewer seniors per hectare, but they experience higher levels of urban heat. The homes here are relatively old, and these areas are quite extensive.

3.2.3 Spatial dimension

The sum of sensible heat flux (heat that warms up air) and storage heat flux (heat that warms up buildings) was the best indicator explaining the urban heat island effect on the vulnerable part of the Rotterdam population. In a further step we explored which morphological elements or land uses account for the sum of sensible heat flux and storage heat flux.

For this clustering we used maps of impervious surfaces, surface water, albedo, vegetation, shade, sky view, building volume, and building envelope. This clustering provides insights into which combinations of morphology and land use the city should avoid and which it should apply more frequently.

A multiple regression analysis was run to predict the sum of sensible heat and storage heat flux. The variables imperviousness, leaf area index, building envelope index, surface water, and shade performed best in predicting the urban heat island effect, $F(5, 15{,}951) = 19{,}167.694$, $p < .0005$, adj. $R^2 = .857$. All five variables added statistically significantly to the prediction, $p < .0005$. Table 3 shows regression coefficients and standard errors.

A two-step cluster analysis for all grid cells (100 m × 100 m) across the city used the outcome of the regression analysis: imperviousness, leaf area index, building envelope index, surface water, and shade. The clustering resulted in eight combinations of morphology and land use features. These are shown on the map in Figure 8, just above the table that explains the underlying values. The port, industry, and business areas play an important role in the formation of the urban heat island in Rotterdam. These areas did not appear on the social heat map because no (senior) citizens live there. The Rotterdam city centre and the surrounding densely built-up districts (north, south, and west) possess more morphological and land-use features that are at the root of the urban heat island problem than other parts of the city.

4 Conclusion

The Hotterdam project examined the urban heat island effect in Rotterdam by answering four research questions:

1. Does the urban heat island effect impact all parts of the city of Rotterdam equally, or are distinct districts more affected than others, and which areas are these?

The urban heat island effect does not impact all parts of Rotterdam equally. The industrial and harbour areas in Rotterdam experience the urban heat island effect most strongly. The districts north, south, and west of the Rotterdam city centre are more strongly affected than the rest of the city.

2. Does a link exist between the urban heat island in the city of Rotterdam and the mortality rate among senior citizens during heatwaves?

We established reasons for the above-average mortality among elderly citizens and explained the spike in the above-average mortality of seniors seventy-five and over in July 2006 in Rotterdam statistically based on:

- The spatial distribution of people in this age group;
- The year that their homes were built; and
- The sum of sensible heat flux and storage heat flux.

3. Can the differences in the urban heat island effect between districts be explained by the morphology and land use of the city of Rotterdam?
Yes. A district experiences differences in the accumulation of urban heat (and the associated public health problems) due to a combination of morphology and land use:

- Impervious surfaces;
- Surface water;
- Foliage (green);
- Building envelopes; and
- Shade.

These dimensions primarily determine whether a district faces more or rather less accumulation of urban heat and associated public health problems.

4. Do the social, morphological, and land-use dimensions of the urban heat island effect represent coherent spatial patterns that allow an area-oriented approach in the urban planning and management of the city?
The cluster analyses of the data did produce coherent spatial patterns. The industrial and harbour areas in Rotterdam are strongly associated with the urban heat island. Because no one lives in these areas, we advise that policies focus on the pre –Second World War districts instead: the districts directly north, south, and west of the Rotterdam city centre. These districts are affected by a relatively high land surface temperature, a relatively high sum of sensible heat and storage heat flux, and higher outdoor temperatures. In addition, the percentage of the elderly living in these areas is still significant.

Frank van der Hoeven
TU Delft, Faculty of Architecture and the Built Environment, Delft, Netherlands
E-mail: f.d.vanderhoeven@tudelft.nl

Alexander Wandl
TU Delft, Faculty of Architecture and the Built Environment, Delft, Netherlands
E-mail: a.wandl@tudelft.nl

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The initial findings of the Hotterdam study were captured in an open access publication written in Dutch with a broad, but local, audience in mind (van der Hoeven & Wandl, 2015b), also available in English (van der Hoeven & Wandl, 2015c). To allow closer inspection of the results, we stored the entire dataset in the open data repository of the 4TU.Centre for Research Data (Wandl & van der Hoeven, 2015).

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Ion MALEAS

Social housing in a suburban context: A bearer of peri-urban diversity?

In recent years, French urban policies have demanded reflection on the possible relations and intersections between two emblematic, and almost antithetical, forms of housing: collective social housing and suburban single-family housing. There are two main laws in place that encourage opposite dynamics in the housing market: on the one hand, the Solidarity and Urban Renovation Act adopted in 2000 promotes social housing construction, obliging municipalities to achieve a certain quota. On the other hand, the Housing and Renewed Urbanism Act adopted in 2014 facilitates private housing production to limit urban sprawl through suburban densification. These opposite planning approaches leave local governments responsible for enforcing complicated policies of questionable feasibility. This article presents the main social and political concepts used in France today to promote social housing: the right to housing and, most importantly for suburbs, the social diversity of neighbourhoods. Subsequently, the relevance of social diversity for the suburbs is discussed. Certain social housing projects that have been successfully implemented in suburban neighbourhoods are examined. Finally, this article opens a discussion on possible methods for resolving the opposition between the dynamics of social housing construction and private housing densification processes in the suburbs.

Keywords: urban policies, social housing, social diversity, suburbs, single-family housing

1 Introduction

Collective social housing and suburban single-family housing are two characteristic forms of housing in recent French history in urban and peri-urban areas, and also in political and academic discourse concerning housing and the urban environment in general. They are rarely associated and almost never imagined as coexisting; the social housing blocks, the *grands ensembles* of Modernism, and the individual suburban residences inspired by New Urbanism often serve as counterexamples of one another (Lelévrier, 2014). However, recent French urban policies demand reflection on the possible relations and intersections between them. These reflections are imposed by and at the same time inscribed in a specific legal and policy framework provided especially by two laws: the Solidarity and Urban Renovation Act (Fr. *Solidarité et renouvellement urbain*, SRU) adopted in 2000 and the Housing and Renewed Urbanism Act (Fr. *Logement et un urbanisme rénové*, ALUR) adopted in 2014. These two laws have been very influential for discussions of social housing and suburban housing.

First, a short bibliographic overview is provided to define the subject matter. Then the French legal framework and the urban policies it entails are examined. From this examination, a hypothesis is formed: the French suburban context currently has two opposing housing policies due to the SRU and ALUR. Opposing dynamics occur between the application of policies imposing a specific percentage of social housing within the total housing stock of each municipality, and the application of policies that facilitate suburban densification (and therefore the multiplication of private housing). Subsequently, and in order to better understand this condition, the various policies that promote social housing in France today are examined. Social diversity is a central concept for encouraging social housing construction, and it is therefore questioned in an effort to define the concept's pertinence to suburban areas. The social characteristics of suburban France are therefore also examined. Finally, certain examples of social housing construction in French suburbs are presented. These examples constitute the basis for a discussion on possible ways to resolve the antagonistic policies identified, and proposals are offered for the systematic construction of social housing in suburbs.

2 The context of suburbs

This article begins by reviewing statistical, legal, and bibliographical sources, focusing on the French example. Two terms used in this article must be defined. Peri-urban area refers to location and is understood in relation to an urban centre as its periphery usually forming concentric circles around it (Dodier & Cailly, 2008), whereas *suburb* is defined mostly morphologically, as a territory where single-family housing proliferates (Duany et al., 2010). Therefore, suburban fabric can be found in peri-urban areas, and peri-urban areas may largely consist of suburban fabric; however, the two do not necessarily coincide. However, it is true that they are two characteristics (one locational, one morphological) that very often coexist, and they tend to be used interchangeably in French sources.

The question of suburbs is a complex one, and its widespread, ever-expanding presence throughout the world has been a subject of international academic discussion for years. In the United States (often considered the exemplar country of the application of the suburban model), important publications include those by Jackson (*Crabgrass Frontier: The Suburbanization of the United States*, 1985) and Fishman (*Bourgeois Utopias: The Rise and Fall of Suburbia*, in 1987), who study the historical socioeconomic roots of suburbs and identify the importance of private property and home ownership, as much as they identify characteristics such as low population density and a dominant residential status. In Italy the concept was first explored by Indovina, who referred to the *citta difussa* 'diffused city' in 1990, and Secchi (who observed similar phenomena, extending them to the European scale), both noting the expanding scale of urban spatial organization mostly due to the dispersion of the residential function (Indovina, 1990; Crysler et al., 2012). Similarly, observing the Ruhr region in Germany, Sieverts explores the concept of what he terms the *Zwischenstadt* 'in-between cities' in his 1997 book, recognizing the spatial, economic, and historical characteristics of a new form of urbanization at a regional scale that is neither urban nor rural (Sieverts, 2003; Charmes, 2015b). The same year in France, Dubois-Taine and Chalas (1997) published on the concept of the *ville émergente* 'emerging city', also discussing its ambiguous character between urban and rural, and city and nature, and noting the seminal role of the suburban house (Charmes, 2015a).

It is interesting to note that in the 2000s, and with the environmental discourses of sustainable urbanization being established, criticism of the suburbs began to focus around their fundamental contribution to urban sprawl. In *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*, Duany et al. (2010) focus on the urban and architectural characteristics most prominent in suburban sprawl (e.g., subdivisions and roads), contrasting them with the traditional dense urban centre (in terms of centrality, walkability, and mixed use) and highlighting their harmful environmental effects. In France, similar criticism arises, with the waste of agricultural and natural land, the extended soil sealing, and the dependency on (and intensification of) car use being some of the focal points studied by the national organization of archi-

tectural and urban research and experimentation, known as PUCA (2015a, 2015b, 2015c). Other criticism in France has to do with the socio-political characteristics of the suburban population, criticizing the lack of social diversity (Donzelot & Epstein, 2009) or its right-wing tendencies (Lévy, 2007). Both environmental and social concerns are embodied in laws established by the French state, and it is interesting to examine them.

3 The legal and urban policy framework

Concerning environmental issues, the laws Grenelles I (law no. 2009-967 of 3 August 2009) and Grenelles II (law no. 2010-788 of 12 July 2010), followed most importantly by their successor law, ALUR (law no. 2014-366 of 24 March 2014), aim at limiting urban sprawl and the consumption of natural and agricultural space by facilitating densification processes. The urban policies that followed make it very difficult for local governments to open new zones for urbanization and make evaluation of densification possibilities obligatory at the local level. In addition, plot subdivision processes are facilitated: the previous plot / construction ratio is abandoned for a method that allows a higher occupancy index, and the municipalities' previous right to define the minimum size of a constructible plot is withdrawn (Ministère du Logement . . . , 2014). These developments particularly concern peri-urban zones and specifically suburban territories. As established by many extensive research programmes in France, these large territories of patchy urban fabric and low density, spreading around and between urban centres – most commonly referred to as *périurbain* 'peri-urban' and *pavillonnaire* 'suburban' in French literature – seem to have genuine potential for densification processes (Hanrot, 2014; Bonnet, 2016).

On the other hand, an emblematic example of social concerns expressed through urban policies is Article 55 of the SRU, which prescribes a quota of at least 20% of social housing within the total housing stock of municipalities with more than 3,500 residents (1,500 for Île-de-France). It establishes a system of penalization with annual and triennial fines calculated in relation to the level of social housing deficiency of each municipality (law no. 2000-1208 of 13 December 2000). The Duflot Law of 2013, reinforces these requirements, raising the percentage of social housing demanded to 25% for most cases (certain municipalities are exempted from the new quota) and increasing the level of fines (law no. 2013-61 of 18 January 2013). In France, out of 36,685 municipalities, only 8.5% have a population over 3,500 (and are therefore affected by these laws). However, these municipalities include 67.6% of the country's population (INSEE, 2017). In the national survey of 2017, out of the 1,997 municipalities concerned, 1,222 of them did not respect their obligations with regard to social housing stock and were subjected to fines totalling EUR 76.8 million, which in turn is used to finance the social housing sector (Ministère de la Cohésion . . . , 2018).

It is therefore possible to identify two opposing housing dynamics in the suburbs. On the one hand, there is the dynamic of private housing through plot subdivision facilitated by the ALUR. On the other hand, there is the dynamic of social housing, a municipal necessity prescribed by the SRU (with penalties for deficiency). These dynamics are antagonistic in that the rise in the numbers of private dwellings in a municipality directly diminishes the municipal percentage of social housing. Indeed, in deficient municipalities, whose fabric is mostly of a suburban nature, local governments have limited operating power compared to the many private landlords in the suburbs. Such municipalities find themselves at an impasse, not having the land available, or the knowhow, to build enough social housing in order to offset the private housing multiplication and densification. It should be noted that the accustomed scale of collective social housing, which mobilizes the traditional public bodies of social housing (e.g., social landlords), is much larger than the plot of a suburban house. Furthermore, municipalities that are not deficient at the moment but have an important share of their territory susceptible to densification (i.e., suburban neighbourhoods) may find themselves deficient in the future if the imminent process of densification is not accompanied by a systematic social housing construction policy at the scale of the suburban private plot.

Therefore, what can be observed is an operating flexibility afforded to a multitude of private housing actors (landlords and developers) in contrast to the penalization of public actors with low operational power in the suburbs (municipal governments and social landlords). As a result, the operational feasibility of both of these policies in the same suburban territory is questioned.

Today in France, 56% of the population lives in a detached or semi-detached suburban dwelling (INSEE, 2016), and a full 87% considers this the ideal type of housing (and therefore wishes or plans to live in such a house; Damon, 2017). At the same time, 74% of all French households are eligible to apply for social housing (INSEE, 2009), with four million people considered to have inadequate or no housing, and an estimated 12.1 million people affected by the housing crisis (Foundation Abbé Pierre, 2017). Could the popular suburban housing model play a role in social housing provisions? Are there ways of constructing small-scale social housing in the suburban fabric? What socio-political concepts are used for social housing, and are they relevant for the suburbs?

4 The engines of social housing production

In the French Construction and Housing Code (Fr. *Code de la Construction et de l'Habitation*), Article L.411 defines the role of social housing in France: "The construction, development, attribution, and management of social rental housing aims to improve the housing conditions for people of moderate or low income. These operations participate in the implementation of the right to housing and contribute to the necessary social diversity of cities and neighbourhoods" (law no. 98-657 of 29 July 1998). These are the first phrases of volume four of the code titled Low-Income Housing (Fr. *Habitations à loyer modéré*), and they clearly highlight the two fundamental challenges of social housing in contemporary France: the right to housing and social diversity.

Indeed, the right to housing is the central idea that led almost all European countries to the large-scale construction of social housing after the Second World War (Scanlon et al., 2015). Having been identified as a fundamental human right (in the Universal Declaration of Human Rights signed in Paris in 1948), housing in western Europe "was seen as part of the social contract between government and citizens which made up the welfare state" (Scanlon et al., 2015: 2). In France, providing housing to those that are unable to access it has been a continuous preoccupation of the state with numerous laws and policies (Driant, 2015). In the 1990s, legal and political efforts concerning the right to housing again moved to the forefront. The right to housing is the subject of the 1990 Besson Law (law no. 90-449 of 31 May 1990), which establishes a new register for urban policies concerning housing, with a focus on the underprivileged population. This law introduces the PLAI (Fr. *Prêt locatif aidé d'intégration* 'Subsidised Rental Loan for Integration') category of social housing (a category focused specifically on the most vulnerable), and it makes citizens' associations important actors in the social housing sector (Driant, 2015; Stébé, 2016).

During the same period, within the official vocabulary of urban policies, a new term, *social diversity*, emerged (most notably with the laws of the 21 December in 1989, known as the "anti-ghetto law", and the "urban orientation law" of 1991; Driant, 2015). This concept is a response to the ghettoization of certain populations that tend to inhabit the social housing blocks. In order to address the socio-spatial segregation of the population and the socio-political division that it entails, the proposition of social diversity is that better distribution of social housing throughout French territory leads to diversification of the housing supply, and therefore to the social diversification of neighbourhoods (Lelévrier, 2014; Charmes & Bacqué, 2016c). The diversity envisioned refers to income levels and socio-professional categories, but also includes underlying ethnic, racial, cultural, and religious diversity (Charmes & Bacqué, 2016a). The approach of this policy is of a spatial character, meaning that its logic is to bring different social groups together in the same places. It is an approach that crosses all government and urban planning scales, regional, municipal, and neighbourhood (Driant, 2015). The driving concept is that its application can change a certain percentage of the population of a neighbourhood, thereby increasing the value of its real estate, and that the spatial proximity of different social groups will cultivate social integration and cohesion (Lelévrier, 2014).

However, the research community has pointed to contradictory results between the two fundamental objectives of social housing (the right to housing and social diversity): the underprivileged population is most commonly housed in less expensive social housing, which is mostly found in working-class neighbourhoods, and this therefore yields contradicting results regarding the objectives of social diversity policies (Jaillet, 2011). The right to housing may have a certain ethical impact and a political value that are not questioned at the European scale or at the French national scale; in contrast, social diversity is a concept that is only applied by the French state at the national level (Houard, 2011; Scanlon et al., 2015; Dhoquois et al., 2016). The concept of social diversity has been widely contested in French literature due to the principles it is founded upon, its underlying objectives, its application strategies, and its socio-political effects on the territory (Lelévrier, 2014; Driant, 2015; Charmes & Bacqué, 2016c; Stébé, 2016).

5 Social diversity: a contested concept

Since its inception, social diversity has been an effective political concept due to its "plastic character" (Jaillet, 2011: 351), which is due to "the notion's polysemy and the diversity of interpretations that could be drawn from it. This polysemy favours a sort of consensus and legitimizes policies that could be vastly different from one another," as supported by Charmes and Bacqué (2016a: 12). They refer to two distinct policies that are both implemented in the name of social diversity but are nearly opposites of each other. One approach is to demolish collective social housing in working-class neighbourhoods in order to replace the housing supply with a more diverse one, thus profiting middle-class households. The other approach is to construct social housing in middle- and upper-class neighbourhoods. These are two sides of the same coin. In his work, Driant specifies these two approaches in France (2015):

- One side of the coin is the policy of urban renovation.

This policy promotes processes of demolition and reconstruction to improve the image and attractiveness of underprivileged neighbourhoods by replacing social housing with a housing supply more attractive to middle - income brackets of the population. However, numerous researchers agree that the spatial proximity of households with different incomes does not negate social distance (on the contrary, it could reinforce it), and it certainly does not resolve social, financial, and political inequalities (Jaillet, 2011 Lelévrier, 2014; Driant, 2015; Giroud, 2016; Stébé, 2016). Such processes of urban renovation (demolition and reconstruction) are mostly carried out in areas with collective social housing that are well situated in relation to urban centres (or at least well connected to them) in order to generate attractiveness and surplus value by offering "an alternative to homeownership in the suburban" environment, with dwellings that are affordable "without having to move to the periphery" (Lelévrier, 2014: 118).

- The other side of the coin is none other than the imposition of a minimum quota of social housing within the total housing stock of municipalities (the infamous Article 55 of the SRU in 2000, and the subsequent Duflot Law 2013). If urban renovation policies are considered to offer an alternative to peri-urban housing, then the SRU could be considered highly pertinent to peri-urban territory. The SRU has had an important influence on social housing production in deficient municipalities, with an increase of 12.7% between 1999 and 2011 (compared to the 6% increase in non-deficient municipalities), translating into an increase in new social housing units from 87,000 in 2002–2004 to an estimated of 140,000 in 2011 – 2013 (Vie publique, 2014; Ministère de la Cohésion . . . , 2015). In contrast, in the region of Provence–Alps–Cote-d'Azur (where nearly 40% of deficient municipalities of France are found), an increase in deficient municipalities has been noted since 2008, attributed to population growth and therefore an increase in private dwellings (Boullion & Couartou, 2016). This serves as an initial indication of the importance of suburbs in this discussion because private dwellings in France are mostly of a suburban nature. Stébé (2016: 115) states that "city centres have proven to follow proactive policies," achieving a higher social housing quota than demanded, whereas municipalities identified as "low performing" are found in the peri-urban areas of large urban centres, and / or are municipalities with a mostly suburban fabric. According to a national survey on Article 55 of the SRU, the municipalities that paid the highest fines in 2016 were Saint-Maur-des-Fossés, Neuilly - sur-Seine, Le Cannet, Sanary-sur-Mer, and Grasse (Ministère de la Cohésion . . ., 2016). Four out of five of these municipalities have a significant share of suburban fabric, and the fifth (Neuilly-sur-Seine is the only one without a suburban character) is found in the Paris peri-urban area (Google Maps, 2017). This is yet another indication that the obligations prescribed by the SRU pose problems for suburban and peri-urban communities. However, the following question still remains: Does the political justification of social diversity (imposed on the territory through Article 55 of the SRU) provide a valid discourse for suburban and peri-urban communities?

6 The importance of social diversity for the peri-urban area

The peri-urban area in France has become synonymous with suburban development, and it is a territory commonly accused of having socioeconomic homogeny, lacking architectural and urban qualities, and plagued by its monofunctionality. Although the architectural and functional homogeny is not contested, the work of researchers such as Dodier et al., Anne Lambert, and Charmes (among others) clearly demonstrates the socioeconomic and political diversity of the French peri-urban area.

"There is not one but several peri-urbans" (Charmes et al., 2016: 85), and each of these peri-urban areas varies in its attributes, and their populations have diverse characteristics and political orientations. While admitting a social diversity "slightly weaker than found in the urban space" (the wealthiest and most impoverished social classes being less present), Dodier (2007: 35 –46) draws attention to the presence of all social categories in the peri-urban areas and invites consideration of a more detailed geography and sociology of suburban territory. Even within each of these peri-urban areas, it is possible to discover a plurality of ways of living and the residents' relations to the neighbourhood and the city – aspects that depend on gender, age, ease of transport, and so on (Cailly & Dodier, 2007). Within all of these variations, certain discrimination has also been identified based on class, nationality, ethnic or racial background, gender, and so on (Lambert, 2015). All of these elements highlight the important social diversity of the peri-urban areas and provide motivation to surpass the polarization between urban and peri-urban areas. They demonstrate the importance of "focusing tirelessly on the *context* and in particular the inequalities between neighbourhoods and the social differentiations" (Sampson, 2016: 35), which is Sampson's most fundamental advice for socio-urban research.

As described above, public policies promoting social diversity are founded on a spatial approach. For the peri-urban areas that Dodier studied on the periphery of the cities of Tours and Le Mans, certain socioeconomic variations were identified

to correlate with a "spatial differentiation" composed of three main elements. The first involves the distance from the urban centre in concentric circles. This is a constant and converging observation between researchers, with the value of houses and land, and thus the socioeconomic level of the residents, decreasing progressively and in a fairly systematic manner depending on the distance from the city centre (Cailly & Dodier, 2007; Dodier, 2007; Jaillet, 2011; Driant, 2015). Second, there is a differentiation that correlates with the quadrants around the city (north, east, south, and west), showing different development dynamics related to the specific features of the territory (e.g., landscape quality, location in relation to public infrastructure such as public transport, and proximity to work areas). The third spatial differentiation that causes socioeconomic variations depends on real-estate fragmentation and is specific and internal to each case (e.g., plot size and date of construction; Cailly & Dodier, 2007).

Through this detailed socio-spatial analysis, and through recognizing the importance of context in each case (Sampson, 2016), the scale of the municipality and of *a* peri-urban area is specified and analysed at the more detailed scale of the neighbourhood and *several* peri-urban realities existing within what was previous conceived as one homogenous territory. At this detailed scale, it is possible to arrive at a deeper understanding of each neighbourhood of the peri-urban areas, and thus it is possible to arrive at a reading of true homogeny, where it exists. Thus, social diversity could be a relevant concept for the suburbs. Interestingly, Sampson was also one of the members of the national advisory committee for the ambitious social experiment called the Moving to Opportunity for Fair Housing Demonstration Programme (Briggs et al., 2010). In the United States in the 1990s, this programme studied neighbourhood effects on low-income households, helping such families move from high-poverty areas to lower-poverty areas, most of them in the suburbs (Briggs et al., 2010; Ludwig, 2012). Although this programme has been criticized for political naivety (Geronimus & Thompson, 2004), most studies point toward important positive effects, including housing conditions (Briggs et al., 2010), education, employment, and delinquency (Gennetian et al., 2012), economic gains (Chetty & Hendren, 2015), and health (Ludwig et al., 2011) of the low-income families that were relocated. Consequently, there are indications that an urban policy of social diversity may find fertile ground in suburban territories.

7 Social housing as a bearer of social diversity in the French suburbs?

With regard to the French suburbs, it can be established that "in the first peri-urban concentric circle of large cities, the social situations are globally more specific, being middle-class" (Dodier, 2007: 35–46) and tending toward upper-class socioeconomic status. These types of peri-urban areas are typically neighbourhoods built in the 1960s, when the popularization of private cars and various urban policies promoted diffused urbanization (Callen, 2011; Haëntjens, 2011; Magri, 2015), with many of their quadrants characterized by suburban houses on large plots, which are usually well-served by public infrastructure (e.g., schools and hospitals), well connected through public transport to the city centre and thus to work areas, and so on (Dodier & Cailly, 2008; Desgrandchamps et al., 2010; Petitet, 2013). These characteristics of urban fabric and location provide favourable conditions both for densification processes (e.g., large plots and good service) as much as for social housing construction (e.g., public transport and work area proximity; Desgrandchamps et al., 2010; Petitet, 2013; Touati & Crozy, 2015). In addition, the fact that the socioeconomic groups that inhabit these neighbourhoods are mostly middle to upper class means that social diversity policies through social housing construction find ethically less conflicting legitimization while still fulfilling the other fundamental role of social housing (as defined in the French Construction and Housing Code): providing housing for disadvantaged households. Therefore, within many quadrants of the first concentric circles of peri-urban areas, potentially fruitful ground is being discovered for the productive intersection of suburban elements (and their densification) and social housing (and therefore social diversity), while constantly taking care to avoid generalizations. This includes paying attention to the context and specific social, economic, and political characteristics of each neighbourhood, and to quadrant aspects such as real-estate fragmentation, landscape quality, sizes of plots, dates of construction, and so on.

Today in France's peri-urban areas there are examples of successful social housing construction at the scale of the private plot. In particular, there are a number of associations (or "social micro-landlords") that systematically produce defused, small-scale social housing projects (one to twelve units per project) within suburban densification procedures (Primard & Touati, 2015). These actors produce PLAI social housing for the most vulnerable, and one of the necessary conditions for commencing a project is the location and its proximity to amenities (e.g., transport, commerce, schools, and work areas). The associations function within the legal framework provided by the Besson Law (profiting from both their possible role within the social housing market and the PLAI category of social housing). In most cases, PLAI social housing already constitutes a form of social diversity for the suburban area; however these social micro-landlords make an additional effort to integrate student housing, housing for seniors, or intergenerational housing (all recognized as social housing by the

SRU) within their projects when such housing is considered pertinent to the wider urban context and the local housing policies. In addition, there is an effort to promote social diversity within each project, with residents of different ages, revenue levels, and so on chosen for small collective housing projects. Finally, when Étienne Primard (the co-founder and president of such an association, *Solidarités nouvelles pour le logement* 'New Solidarities for Housing', or SNL) was asked in an interview about the most essential criteria for launching a project, the first one he highlighted is the possibility of mobilizing neighbours in participatory procedures related to the project (Primard & Touati, 2015).

Indeed, with efforts to construct social housing in the suburban densification context of middle- and upper-class peri-urban areas, the concept of social diversity is bound to face opposition from residents. Although social diversity is an idea well accepted by the majority of the French population (ELABE, 2016), suburban densification is almost always met with discontent from local residents (Desgrandchamps et al., 2010) and the reputation of social housing only adds to that tension. Participatory processes are a way to discuss and adjust a project in order to achieve its construction while providing satisfactory solutions to all interested actors. These types of project procedures contribute to new trades, new practices, and new abilities in the urban fabric (Biau et al., 2013). The detailed analysis by Dodier and the deeper understanding of peri-urban areas, as much as the attention to context and the progress from the terrain sociology of Sampson, promote a form of citizen participation in the sense of the importance given to the inhabitants' word. Increasingly, these participatory approaches are considered necessary elements of suburban densification processes (Petitet, 2013; Hanrot, 2015). In social housing, resident consultation and participation are already an integral part of social housing management (Demoulin, 2013; Dhoquois, 2016), and in recent years Patrick Bouchain (2010, 2016), an architect celebrated for his participatory project methods, has examined the possibilities of inhabitant participation in the conception and construction of social housing. Even for contested and questioned urban policies of social diversity, the criticism is that they "are unfortunately often carried out without, and in some cases against, the concerned inhabitants" (Charmes & Bacqué, 2016b: 99–100). Furthermore, the potential of a participatory social diversity policy, through procedures that respect the existing residents and create true social connections between old and new residents, is often highlighted (Lelévrier, 2014; Charmes & Bacqué, 2016c).

It is important not to conceal the great complexity of participatory processes in the urban project, not to consider it a panacea for all urban problems. In thirty years of the experience of the SNL association in such a tense and conflict-ridden area, they have never had a construction permit blocked by residents (Touati, 2014), and so their model of operation could at least serve as a source of inspiration. With their projects well accepted by both local governments (because they contribute to lowering the fines related to the SRU) and local residents (because they are informed and can influence the result through their participation – a result that always remains on the architectural scale of the suburban), the SNL model serves as a successful example. It is crucial to learn from such an example, specifically by following Primard's advice on resident consultation and participation throughout all planning scales, whether this is regional (and includes the formulation of regional planning documents such as the SCoT or the PLH in the French case), or at the scale of the municipality and its neighbourhoods (with planning documents such as the local urbanism plans; Primard & Touati, 2015). At the same time, it is equally important to note its weaknesses:

- These associations are based on a certain political commitment of their founders, related to the right to housing of their fellow citizens, and the great majority of their personnel are volunteers (in the case of the SNL, 70 employees and 1,127 volunteers; SNL-Union, 2017).
- Furthermore, this method of producing social housing within suburban densification processes will continue to remain marginal if it does not include financial interests for private landlords (the owners of the vast majority of suburban land).

In order to achieve the popularization of such an urban policy and make the diffused production of social housing systematic at the suburban scale, it is necessary to consider the reality of densification that is bound to be mostly at the scale of the private suburban plot and initiated by private landlords, and must therefore offer a certain financial compensation to the owner.

8 Conclusion

Beyond committed associations, there are other actors interested in this subject, actors that must be mobilized in the effort to provide solutions. First of all, the municipalities have an interest in finding ways to avoid the SRU fines they are currently paying while providing housing through suburban densification. Furthermore, the traditional bodies of social housing (social landlords) must also be mobilized. During the last decade, these social landlords have become increasingly interested in smaller project scales (with 95% of constructed social housing being small collective housing complexes, intermediary housing, or individual dwellings; Stébé, 2016). Their collaboration with private developers and constructors is becoming more common, and thus easier and simpler with time (Dhoquois, 2016). In addition, these traditional social

landlords have also started committing to projects with a more urban design / renewal character by including public spaces, shops, and other places (Couartou, 2016). With the hypothesis of the commitment of these social landlords / urban designers in the suburban context, the beginning of an urban, architectural, and functional diversity is possible to imagine.

Although social diversity is a contested concept, in certain contexts it could be a beneficial policy objective. Questioning popular belief, the social characteristics of the French suburbs have proven to be rather diverse. However, by following an in-depth, detailed analysis of peri-urban areas, and by focusing on the context of each case, it is possible to find examples where social diversity policies could be productive. International cases provide an encouraging basis to inspire such diversity experimentations, focusing on suburban fabric in the first peri-urban circle.

Furthermore, the example of social micro-landlords, such as the SNL, could effectively serve as operating models for these actors (such as the municipalities themselves and the traditional social landlords). What their model indicates is that participatory procedures could help reconcile the antagonism between private and social housing dynamics through collaboration between inhabitants, municipalities, and social landlords, and the mobilization of private dwellings in social housing provisions. However, there is currently no regulatory apparatus that could clearly and easily bring inhabitants, municipalities, and social landlords (whether micro-landlord, traditional landlord, or landlord as urban designer) together in construction operations. Moreover, the need for solutions that are financially more attractive for more of the actors involved demands thorough reflection. Urban, architectural, and landscape proposals that respond to the environmental objective of densification, and at the same time respond to the social objective of social housing, must be provided. The ensemble of these reflections on the subject must take into account all levels, starting from the level of the EU and its urban policies, to the national, regional, municipal, and neighbourhood levels, and finally the level of the residents and their private plots. The proposals should be produced through participatory procedures in order to offer solutions that are socially, politically, financially, and architecturally viable, enduring, and sustainable for peri-urban environments of the future.

Ion Maleas
Marseilles School of Architecture, Marseille, France
E-mail: ionmaleas@gmail.com

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Blaž KRIŽNIK

Transformation of deprived urban areas and social sustainability: A comparative study of urban regeneration and urban redevelopment in Barcelona and Seoul

The transformation of deprived urban areas is important for strengthening social sustainability in particular localities, and it is also instrumental in attracting new investments to cities. Speculative urban development, however, often ignores the social importance of localities and considers them mere economic assets that can be stripped of historical, social, and symbolic meaning and turned into easily marketed commodities. This article examines the somewhat contradictory role of the transformation of deprived urban areas in cities. It compares Barcelona and Seoul, two cities with different historical, cultural, and institutional contexts. The 22@ Activity District in Poblenou and Wangsimni New Town are explored as case studies to understand how urban regeneration and urban redevelopment are embedded in a particular locality and what consequences they have on social sustainability. Although the two cases differ in terms of planning approach, stakeholders, and institutional contexts, the findings suggest that the consequences for social sustainability were similar in both. The article argues that declining social cohesion and a lack of citizen participation were a consequence of speculative urban development, in which urban regeneration and urban redevelopment were instrumentalized to attract investments, strengthen economic competitiveness, and improve the city's global appeal rather than address diverse local challenges.

Keywords: citizen participation, social cohesion, social sustainability, urban redevelopment, urban regeneration

1 Introduction

Cities compete to attract investments, jobs, events, and tourists to boost their economic growth and urban development, and to improve their quality of life. There is little evidence, however, that competition benefits everyone equally. In fact, the benefits of competition are often rather unevenly distributed across different social groups in the city (Brenner et al., 2012; Harvey, 2012). Moreover, environmental degradation, social and economic disparities, and declining civil rights are seen as a consequence of a competitive urban policy that prioritizes commodification of public space, privatization of social amenities and services, deregulation of urban planning, and the construction of iconic projects, along with city marketing (Short, 2004; Mayer, 2007). This market-driven urban development considers localities to be mere economic assets that can be stripped of historical, social, and symbolic meanings, and turned into easily marketed commodities (Balibrea, 2001; Short, 2004; Križnik, 2011). In this sense, the transformation of deprived urban areas has become instrumental in attracting new investments to cities (Smith, 2002; Shin & Kim, 2016). At the same time, the improvement of deprived urban areas is also important for strengthening social sustainability in cities (Manzi et al., 2010; Colantonio & Dixon, 2011; Ho et al., 2012).

This article examines the somewhat contradictory role that the transformation of deprived urban areas has in cities. It compares Barcelona and Seoul, two cities with rather different historical, cultural, and institutional contexts. Previous research suggests that in spite of these differences the transformation of what the Barcelona City Council and Seoul Metropolitan Government (SMG) considered to be underdeveloped urban areas was often instrumentalized to attract investments, strengthen economic competitiveness, and improve the global appeal of Barcelona (Marshall, 2000; Balibrea, 2001; Arbaci & Tapada-Berteli, 2012; Dot Jutgla et al., 2012; Charnock et al., 2014) and Seoul (Cho, 2008; Kim, 2010; Križnik, 2011; Shin & Kim, 2016). This was publicly legitimized as being of strategic importance for the city and seemingly beneficial for all citizens (Ajuntament de Barcelona, 2000, 2012; SMG, 2005, 2010). This similarity regarding instrumentalization and legitimization is the starting point for comparing the transformation of deprived urban areas in Barcelona and Seoul and its consequences for social sustainability in individual localities.

Although urban development in Barcelona and Seoul is well studied, it has seldom been discussed from a comparative perspective; exceptions include Uršič and Križnik (2012), Colantonio et al. (2014), and Križnik (2014). The article begins with a discussion on the relationship between urban development and social sustainability to establish a framework for assessing the consequences of urban development for social sustainability in localities. Barcelona and Seoul are compared in terms of their position in the global urban system and their respective national urban systems, institutional contexts, and planning approaches. 22@ Activity District (22@) in Barcelona's Poblenou and Wangsimni New Town (WNT) in Seoul are explored as an in-depth case study of urban regeneration in Barcelona and urban redevelopment in Seoul in terms of planning approach, stakeholders, and consequences for social sustainability.[1] Finally, the findings are summarized, the conclusion is presented, and limitations of the study are discussed.

2 Urban development and social sustainability

Sustainable urban development is commonly addressed in terms of the "three-E framework," according to which sustainable economic growth of cities should be balanced with environmental protection and social equity (Mayer & Knox, 2006: 324). Balancing the economy, the environment, and social equity requires negotiation between stakeholders, which implies that sustainable urban development also has an inherent political dimension. In contrast to the past, when sustainable urban development used to be reduced to its economic and environmental dimensions, a multi-dimensional approach, which recognizes the importance of social sustainability for long-term sustainable urban development, is now widely accepted (Dempsey et al., 2011; Dujon et al., 2013). One reason for the relatively little attention that social sustainability received earlier is related to the insufficient understanding of the relationship between social sustainability and urban development. Another reason lies in the often intangible social consequences of urban development, which eventually pose difficulties for implementing and assessing urban policy that promotes social sustainability.

Colantonio and Dixon (2011: 24) argue that social sustainability should be approached in terms of "traditional social policy areas and principles, such as equity and health, with emerging issues concerning participation, needs, social capital, the economy, the environment, and, more recently, with the notions of happiness, well-being, and the quality of life." In Colantonio and Dixon's view, urban policy that aims to strengthen social sustainability should improve the quality of everyday life; promote equal opportunities for social groups with different economic, social, and cultural backgrounds; foster social integration by addressing economic, social, and po-

litical exclusion; sustain existing social and cultural structures in localities; encourage citizen participation in decision-making; and support self-management of localities. Integration of a broad array of policies – including those focusing on economics, social welfare, education, the environment, and urban planning – is therefore needed to strengthen social sustainability in cities (Dempsey et al., 2011).

Planning approaches that address the transformation of deprived urban areas, such as urban redevelopment or urban regeneration, are an important instrument to address social sustainability in cities (Williams & Dair, 2007; Manzi et al., 2010; Colantonio & Dixon, 2011; Ho et al., 2012). Apart from providing affordable housing, social amenities, and infrastructure, transformation of deprived urban areas can mitigate social inequalities and address social exclusion in localities by creating inclusive places where social groups with different backgrounds can meet and where communal life and shared identities can be created and reproduced (Forrest & Kearns, 2001). Urban redevelopment, however, is focused on physical improvement and re-imaging of deprived urban areas, which are partly or entirely demolished and replaced with new urban development. This often leads to a massive displacement of residents and the collapse of their social networks. In contrast, urban regeneration addresses the economic, social, environmental, and physical transformation of deprived urban areas, where new urban development is integrated within existing social and urban fabric (Cho & Križnik, 2017; Roberts et al., 2017). Ho et al. (2012: 127) argue that such a gradual and comprehensive approach is more appropriate "for enhancing the sustainability of the built environment."

Citizen participation is widely regarded as playing a critical role in strengthening social sustainability (Irvin & Stansbury, 2004; Dempsey et al., 2011). It leads stakeholders to become better aware of various interests, problems, and opportunities in localities, as well as to learn to solve these challenges collectively. This can improve the quality of planning, legitimize decision-making, and also encourage citizens to actively use and appropriate places that are transformed with their participation (Cerar, 2014). Cho and Križnik (2017: 151) recognize "the necessity of building a robust partnership between the state and civil society" as an important step towards successful community-based urban development and stronger social sustainability in cities. In their view, planning approaches that aim to strengthen social sustainability should promote citizens' active involvement in decision-making and contribute to socially cohesive localities. These are characterized by low levels of social inequality, strong social connections and trust, and well-established communication and cooperation among citizens and public institutions (Larsen, 2013). In this way, the transformation of deprived urban areas can improve social interaction, trust, and solidarity among various stakeholders, as well as confidence in public institutions, which according to Manzi et al. (2010: 18) are the "core concepts and guiding principles for a localized social sustainability agenda."

Many cities in which citizens are excluded from decision-making face difficulties in maintaining their social and territorial cohesion (Brenner et al., 2012). Harvey (1989: 13) argues that these problems largely stem from what he calls "urban entrepreneurialism" and "ruinous inter-urban competition." As a result, urban development becomes increasingly speculative and instrumental in mobilizing "urban real-estate markets as vehicles of capital accumulation" (Smith, 2002: 446). In terms of capital accumulation, cities with a comparatively peripheral position in the global urban system are expected to face stronger pressures than dominant centres (Gugler, 2004; Short, 2004; Harvey, 2012). Taylor (2004) calls these cities "wannabe global cities," indicating their aspiration to challenge the established relations in the global urban system. Inter-urban competition and resulting speculative urban development can in turn negatively affect not only social sustainability in localities but also cities' long-term capacity to effectively address emerging social, economic, and environmental challenges (Wolfram, 2018).

3 Research methodology

In contrast to what she calls the "classical comparative approach," Sassen (2001: 348) argues that comparing cities in the global urban system requires a new methodology; one that is not based on standardization across cases, but that tries to track "a given system or dynamic . . . and its distinct incarnations . . . in different countries." This study follows her suggestion and compares Barcelona and Seoul to better understand the consequences of speculative urban development on social sustainability. Both cities formerly occupied a similar position in the global and national urban system in the past. Earlier research suggests that this affected the transformation of deprived urban areas, which was instrumentalized to attract investments, strengthen economic competitiveness, and improve the global appeal of Barcelona and Seoul (Marshall, 2000; Balibrea, 2001; Cho, 2008; Kim, 2010; Križnik, 2011; Arbaci & Tapada-Berteli, 2012; Dot Jutgla et al., 2012; Charnock et al., 2014; Shin & Kim, 2016). This was largely legitimized in public as being of strategic importance for the city and seemingly beneficial for all citizens (Ajuntament de Barcelona, 2000, 2012; SMG, 2005, 2010).

The similar instrumentalization and legitimization of urban development in relation to the position of both cities in the global urban system and their respective national urban systems constitutes the methodological starting point for a cross-cultural comparison of the transformation of deprived

urban areas in Barcelona and Seoul. Although both have been discussed from a comparative perspective, earlier studies focused on the impact of inter-urban competition on urban management (Uršič & Križnik, 2012), the role of multi-level urban governance for their economic resilience (Colantonio et al., 2014), or the grassroots responses to the globalization of Barcelona and Seoul (Križnik, 2014). These studies paid less attention to the impact of urban development on social sustainability, which is recognized as a major challenge for cities in the future (Dempsey et al., 2011; Wolfram, 2018). For this reason, 22@ in Barcelona and WNT in Seoul are explored as an in-depth case study of urban development to understand how different planning approaches are embedded in a particular locality and what consequences they have on social sustainability. The assessment of social sustainability focuses on social cohesion and on the involvement of citizens in decision-making, which are recognized as the key principles of social sustainability (Forrest & Kearns, 2001; Irvin & Stansbury, 2004; Manzi et al., 2010; Cho & Križnik, 2017).

The field research consisted of numerous site visits to Poblenou and Wangsimni between 2006 and 2012 to observe their social and urban transformation. During this period, semi-structured interviews were conducted with twelve interviewees from Barcelona and sixteen from Seoul, each of them belonging to one of five major stakeholders' groups.[2] Two surveys – which included 148 respondents from Poblenou and ninety-five from Wangsimni – were carried out in 2006 and 2007, with the aim of comparing the consequences of the transformation of each locality on everyday life. These surveys were based on quota non-probability sampling, in which respondents were selected according to their sex, age, place of birth, education, and homeownership.[3] Because this method does not allow generalization of the survey results to the overall population, these were complemented with in-depth interviews and extensive analysis of secondary sources. These included but were not limited to local government documents and reports, research papers on urban policy and planning, and various historical records about Poblenou and Wangsimni. Finally, the findings were discussed with field experts in both cities in order to avoid cultural bias in understanding and assessing the data, which is believed to be a major difficulty in cross-cultural studies (Hantrais & Mangen, 1996).

4. Case study: Barcelona and Seoul

4.1 The institutional context of urban development in Barcelona and Seoul

Barcelona and Seoul are the capitals of Catalonia and South Korea. Both used to occupy a similar position in the global urban system, which Gugler (2004) described as second-tier global cities. Taylor (2004) similarly ranked Barcelona and Seoul as thirty-second and forty-first, respectively, in terms of their global network connectivity based on his analysis of advanced producer services in the early 2000s. Other authors identified the comparably peripheral position of Barcelona and Seoul in the global urban system in the past (Beaverstock et al., 1999; Alderson et al., 2010; Csomós & Derudder, 2013). In contrast to dominant centres, such as New York, London, or Tokyo, which Sassen (2001: 3) recognized as the "command points in the organization of the world economy," the importance of Barcelona and Seoul in the global urban system resulted from their role of connecting the national economy to global markets. Barcelona is a case of what Taylor (2004) calls an "inner wannabe city." For the past two decades, the strategic goal of the local government was to challenge the dominant position of Madrid in the national urban system by developing innovation, knowledge, and creative industries, as well as advancing communication, logistics, and transportation infrastructure (Ajuntament de Barcelona, 2012). The city tried to improve its position not only in relation to Madrid but also to other European and Mediterranean cities (Monclús, 2003; OECD, 2009). In contrast, Seoul used to be an example of an "outer wannabe city," trying to compete with Tokyo, Hong Kong, and Beijing by boosting advanced producer services and by promoting knowledge and cultural industries (Taylor, 2004). Although Seoul offers world-class communication and transportation infrastructure, improving the quality of life remains one of the main strategic goals of the local government (OECD, 2005; SMG, 2013).

In this way, both cities successfully transformed themselves from industrial national capitals into important post-industrial global cities over the past decade. Seoul in particular has managed to considerably strengthen its global "command-and-control function," whereas Barcelona maintains its competitive advantages despite the declining importance of European cities overall (Csomós & Derudder, 2013: 346). Globalization has thus strengthened their role as national economic, social, cultural, and political centres, leading to a further concentration of population, and financial and political power. In 2014, about 63% of the Catalan population lived in the Barcelona Metropolitan Region and about 48% of South Koreans lived in the Seoul National Capital Region (Ajuntament de Barcelona, 2015; SMG, 2015a). At the same time, Barcelona is not only the Catalan capital, but also the second-largest Spanish city, and the rivalry with Madrid has always strongly affected urban development (Monclús, 2003). Both continue to attract major investments, knowledge and cultural industries, advanced producer services, jobs, and key R&D and educational institutions in Catalonia and South Korea, although the importance of metropolitan regions has recently grown (Choe, 2005; OECD, 2005, 2009).

This particular position of Barcelona and Seoul in the global and national urban system also affects the transformation of deprived urban areas, which has become increasingly instrumental in attracting investments to each city (Charnock et al., 2014; Shin & Kim, 2016). The improvement of deprived urban areas in Barcelona dates back to the late nineteenth century, when large parts of the city centre were substantially transformed. Following this tradition, the local government introduced an innovative planning approach in the 1980s, which was "to deliver the renewal programme in the whole central district and tackle deprivation under a unique and integral vision" (Arbaci & Tapada-Berteli, 2012: 292). This planning approach was extended to peripheral areas after the 1980s (Esteban, 2004). Successful improvement of deprived urban areas has become widely recognized as an essential part of the "Barcelona model" of urban development (Monclús, 2003). This refers to the large-scale urban regeneration of former industrial land into mixed-use and compact urban areas, which is sustained by public investments in social amenities and transportation infrastructure, the provision of high-quality public space, and well-established partnerships between various stakeholders (Marshall, 2000; Balibrea, 2001). Amid rising speculative urban development, these partnerships were challenged during the 2000s, which led some authors to write about the demise of the Barcelona model (Delgado, 2004; Degen & García, 2012).

In contrast to Barcelona, the local government in Seoul used to promote the urban redevelopment of deprived urban areas rather than urban regeneration.[4] Since the late 1970s, a "wholesale clearance led by private investment was the distinct feature of Seoul's urban redevelopment policies" and was commonly followed by forceful displacement of residents to make way for speculative urban development (Kim & Yoon, 2003: 587). Virtually all of downtown Seoul has been transformed in this way. During the past decade, however, the failure of urban redevelopment to address growing social, economic, and environmental challenges has prompted the local government to reconsider this planning approach and start improving deprived urban areas in a more comprehensive and inclusive manner (Cho, 2008; Kang, 2012; Križnik, 2013). Community-based urban regeneration became an integral part of urban development in Seoul after 2008 with the aim of involving citizens in planning and improving their neighbourhoods (SMG, 2013, 2015b).

Regarding the transformation of deprived urban areas, another important difference between Barcelona and Seoul is related to the institutional context of decision-making, in particular to the relation between public institutions and civil society. The local democracy in Barcelona progressed along with the democratization of Catalan and Spanish society during the 1970s, and the first democratic local elections were held in 1979. In South Korea, democratization preceded local democracy, and the first democratic local elections were held in 1995. Citizen participation, in which private and civil society stakeholders take part in decision-making along with the local government, has a longer tradition in Barcelona than Seoul. Neighbourhood associations in particular used to play an important role in improving Barcelona's deprived urban areas since the 1970s as broad grassroots coalitions, representing diverse local interests (Marshall, 2000; Esteban, 2004). In contrast, only property owners were able to take part in urban development in Seoul through the redevelopment associations, which were in practice controlled by construction corporations with active support from the local government (Kim, 2013; Shin & Kim, 2016). In Seoul it is therefore difficult to talk about institutionalized citizen participation in the transformation of deprived urban areas before the late 2000s (Park, 2006; Cho & Križnik, 2017).

4.2 Barcelona: The 22@ Activity District in Poblenou

The 22@ Activity District, introduced in 2000, is one of the largest urban regeneration projects undertaken in Barcelona in recent decades. It focuses on the transformation of 1,982,700 m^2 of former industrial land in the industrial heart of Barcelona into a compact and mixed-use district, where strategic sectors – ICT, medical technology, biotechnology, energy management, and media and design – are to replace traditional industry. This means that the plan is expected to foster economic growth, improve economic competitiveness, and sustain Barcelona's transformation into a competitive global city. The Poblenou area was selected for this far-reaching transformation due to its proximity to the city centre, its low building density, the availability of vacant or underused land, accessibility, the underdeveloped local economy, its seemingly decaying social situation, and its long history of industrialization (Ajuntament de Barcelona, 2000, 2012; Oliva, 2003).

The industrialization of Poblenou dates back to the mid-nineteenth century, when large textile and machinery industries were established in the area due to good transportation and spatial conditions for industrial development. Many working-class neighbourhoods were built at that time along with the factories. Poblenou became known as the "Catalan Manchester" not only for its distinct industrial landscape, but also for its everyday life and local culture, characterized by a poor economic situation and low quality of life, vastly underdeveloped social amenities, and strong working-class solidarity and social activism (Arxiu Històric del Poblenou, 2001). The poor social and economic situation declined further after the 1960s, following the massive deindustrialization of the area and

Table 1: Population growth in Poblenou.

	1970	1981	1986	1991	1996	2001	2006	2011
Population	64,493	61,403	57,328	58,021	55,945	58,035	69,396	77,393
Growth		–5%	–7%	1%	–4%	4%	28%	4%

Source: Ajuntament de Barcelona (2015).

Figure 1: 22@ aims to integrate the existing neighbourhood with the new urban development (photo: Barcelona Activa, Barcelona City Council).

relocation of major industries out of the city. From 1970 to 2001, around a quarter of residents left Poblenou due to the poor living conditions and unemployment (Table 1).

Improving the quality of life in Poblenou was therefore another important aim of 22@, apart from addressing the economic competitiveness of Barcelona. In this sense, urban regeneration was to transform the locality into a compact and mixed-use neighbourhood by providing new housing, green space, social amenities, and infrastructure, and by legalizing existing housing. Moreover, the industrial heritage was to be restored and integrated with the new urban development (Ajuntament de Barcelona, 2006). This was to be achieved primarily by focusing on the urban development of what the local government called strategic areas, which were to act as "motors for the transformation of the area, . . . grant coherence," and allow for mixed-use with "sufficient continuity to the residential fabric" (Ajuntament de Barcelona, 2000: 18).

The local government accordingly publicly presented and legitimized 22@ as being of utmost importance for the future of Poblenou and the city (Ajuntament de Barcelona, 2012). The former head of the municipal urban planning department was clear about the anticipated role of 22@ for the city's long-term economic growth, as well as about its importance for improving the quality of life in the locality. In his view, the "new services amalgamation must return to the city, to the new knowledge-based city. Urban development regulations must allow this recovery of industry, and economic promotion policies must foster it . . . to maintain our position among leading European cities, with new employees in new offices, with good communications . . . and, in short, to improve citizens' quality of life" (Bragado i Acín, 2001: 42).

Table 2: Population growth in Wangsimni.

	1979	1984	1989	1994	1999	2004	2009	2014
Population	32,622	34,298	31,212	25,224	26,178	23,961	13,682	13,086
Growth		5%	–9%	–19%	4%	–8%	–43%	–4%

Source: SMG (2015a).

Figure 2: Wangsimni New Town has completely replaced the old neighbourhood (photo: Choi Hongyi).

Many of these initial aims have been achieved over the past decade. Poblenou has been transformed from a seemingly declining neighbourhood into a bustling mixed-use one, where different social and economic activities seem to be well integrated (Figure 1). Emerging knowledge and cultural industries and services, educational and R&D facilities, and public institutions provide new business opportunities and jobs, and the residents can enjoy new public parks and use new social amenities and infrastructure (Ajuntament de Barcelona, 2012). However, contrary to the initial aims, the provision of these amenities did not follow the rapid pace of urban development, and the protection of industrial heritage against anticipated commercialization of the area also did not work as expected. Moreover, Charnock et al. (2014: 200) argue that in reality "the transformation process has been largely determined by *rentier* practices to capture monopoly rents" rather than by promoting knowledge industries or improving the quality of life in Poblenou. Considering the decline of jobs in traditional industrial and service sectors, growing housing costs, and the exclusion of residents from bureaucratized decision-making (Marrero Guillamón, 2010; Dot Jutgla et al., 2012), it is not surprising that 22@ has also resulted in negative consequences for everyday life in Poblenou and triggered a grassroots mobilization against the transformation of the locality (Križnik, 2014).

4.3 Seoul: Wangsimni New Town

At first glance, WNT seems far less important for Seoul than 22@ is for Barcelona. The urban redevelopment of a small mixed-use area of 324,000 m² into a new residential and commercial neighbourhood was only one among many similar projects that were constructed all over the city throughout the past decade. WNT, however, is a pilot project of New

Table 3: Perception of everyday life and urban development in Poblenou and Wangsimni.

	Poblenou	Wangsimni
Workplace located in the neighbourhood	58%	66%
Frequently spending weekends in the neighbourhood	66%	69%
Meeting neighbours on a daily basis	28%	32%
Meeting neighbours on a weekly basis	20%	41%
Good relations with neighbours	69%	65%
Perception of neighbourhood as an underdeveloped area	29%	64%
Very familiar with 22@/WNT	17%	8%
22@/WNT reflects the interests of residents	6%	37%

Town Development – an initiative that the local government introduced in 2002 with the intention of balancing urban development, creating new jobs and investment opportunities, and improving Seoul's economic competitiveness (Kim, 2010; Kang, 2012). This was expected to resolve regional disparities by addressing problems of urban sprawl, housing, lacking infrastructure and social amenities, and shrinking employment. It focused on what the local government considered underdeveloped urban areas in northern Seoul in order to balance its economic growth and urban development with the more affluent southern part (SMG, 2010). The deputy mayor for public affairs and one of its masterminds emphasized the strategic importance of New Town Development. In his view, the "main rationale behind the New Town initiative was that it was the time to focus on the revitalization of existing neighbourhoods rather than on *sindosi* development. . . . Therefore, the existing city had to be redeveloped based on wide-range, comprehensive plans that took into account the overall demand for urban infrastructure" (cited in Kim, 2010: 95).[5] Wangsimni was chosen to be one of the three pilot projects that were expected to showcase the benefits of this new planning approach, in which the social, economic, and environmental dimensions of urban redevelopment would be addressed in a comprehensive way (Cho & Križnik, 2017).

Wangsimni used to be located on the outskirts of pre-modern Seoul. During the city's rapid industrialization in the 1960s, the locality became packed with small industries, which nevertheless experienced a slow but steady economic decline over the subsequent decades (Seoul Museum of History, 2009). From 1979 to 2004, Wangsimni lost 27% of its population (Table 2). The seemingly deteriorating economy and poor living environment, along with its good accessibility and proximity to the downtown area, are among the main reasons that the local government selected the area for New Town Development (SMG, 2005). Yet this decision seems to have been less a result of the actual needs of the residents than the economic and political interests of the local government, particularly in relation to the nearby Cheonggyecheon Restoration.[6] Although the two were formally not related, the Cheonggyecheon Restoration had a direct influence on the decision to select Wangsimni as the pilot project and show the seemingly positive impacts of the restoration on the deprived urban areas (Kim, 2010).

WNT was planned as a mixed-use residential and commercial area with many social amenities and extensive green areas. The local government presented the plan as an "environmentally friendly urban centre community in harmony with Cheonggye Stream" and as a "rural area in the heart of the metropolis . . . a new community where residents of different generations and social groups could coexist" (SMG, 2005: 22). In reality, however, urban redevelopment has led to the full-scale demolition of the old and construction of a new neighbourhood, which has little in common either with the announced goals of the plan or with the interests of its stakeholders. This inconsistency between the plan and its actual implementation was largely a consequence of the changing attitude of the local government, which had initially called for the improvement of the existing urban areas and tried to listen to different stakeholders, but finally focused on the speculative interests of property owners (Cho, 2008; Kim, 2010). The local government thus aimed to implement the plan as quickly as possible because this was considered of strategic importance for the city (SMG, 2010).

WNT, which is nearing completion, offers new residential and commercial space and social amenities, and has greatly improved the living environment for new residents (Figure 2). The transformation has not only significantly changed the living environment in Wangsimni, but has also altered the established social structure and economic organization, and had negative consequences for everyday life in the locality. Most of the former residents were displaced, and the large-scale demolition negatively affected the local economy and communal life, and contributed to a loss of jobs in the traditional industrial and service sectors (Kim, 2010). However, in contrast to the extensive grassroots mobilization in Poblenou, protests by small property owners and tenants in Wangsimni emerged late

and were focused on protecting their material interests rather than challenging the transformation of the locality (Križnik, 2014).

4.4 Consequences and perception of urban development

The survey results and interviews reveal that Poblenou and Wangsimni used to have a well-developed economic and communal life before the urban development started. This largely contrasts with the notion of a deprived urban area, which the local government used in public to legitimize the transformation of Poblenou and Wangsimni (Ajuntament de Barcelona, 2000; SMG, 2005). The survey showed that 66% of respondents in Poblenou and 69% in Wangsimni claimed that they frequently spent their free time in the locality. At the same time, about half of all respondents had their workplace in the neighbourhood, which together points towards a strong place attachment (Livingston et al., 2010). Twenty-eight per cent of respondents in Poblenou and 32% in Wangsimni met their neighbours on a daily basis, whereas 20% of respondents in Poblenou and 41% in Wangsimni met them on a weekly basis. Sixty-nine per cent of respondents in Poblenou and 65% in Wangsimni also considered their relationships with neighbours excellent or good (Table 3). The survey suggests that everyday life in Poblenou and Wangsimni used to be characterized by relatively strong social cohesion in the past, which is of key importance for social sustainability in localities (Manzi et al., 2010; Colantonio & Dixon, 2011).

If the local governments had been concerned with social sustainability, the transformation of Poblenou and Wangsimni should have maintained or strengthened social cohesion in the locality. Indeed, one of the aims of 22@ was to integrate new urban development with existing social and urban fabric by legalizing 4,614 housing units, which were earlier considered illegal due to the exclusive industrial land use (Ajuntament de Barcelona, 2000). Such an approach could have sustained the social connections, place attachment, and collective identity in Poblenou. However, many of these residential buildings were demolished due to speculative urban development. At the same time, old industrial buildings were also designated for demolition, which has become a major source of conflict between the local government and residents. They considered industrial heritage to be an important part of their "collective memory of the history of industrialization" (Grupo de trabajo sobre patrimonio del Fòrum Ribera del Besos, 2003: 7). Grassroots mobilization – aiming to preserve old factories and the collective identity of Poblenou – has forced the local government to designate a larger number of industrial buildings as cultural heritage and eventually transform some of them into social amenities (Ajuntament de Barcelona, 2006).

The residents of Poblenou also faced expropriations, displacement, a decline in jobs, and rising housing costs (Assemblea de Joves del Poblenou i Assemblea d'Endavant (OSAN) del Poblenou, 2011; Dot Jutgla et al., 2012). The new urban development has seen more than twenty thousand residents move to Poblenou over the past decade, which is equivalent to one-third of the neighbourhood's population in 2000 (Table 1). During the same period, the population of Sant Martí district, where Poblenou is located, has grown by only 12% (Ajuntament de Barcelona, 2015). The actual number of new residents could be even higher because some old residents had to leave the area due to the growing costs and lack of affordable housing. From 2000 to 2010, the Sant Martí district saw the fastest growth of rents in the entire city. During this period, the average rental prices increased by 212%, which was higher than the average increase of 187% in Barcelona (Ajuntament de Barcelona, 2015). To address the issue of affordable housing, the local government planned to build four thousand social housing units, with 25% of them for the residents of Poblenou. By 2010, 1,520 units were actually completed (Ajuntament de Barcelona, 2012). As a result, residents started to perceive the ongoing transformation of the locality as a purposeful attempt on the part of the local government to change the existing social structure and collective identity of Poblenou (L'Associació de Veïns, 2003). This intensified conflicts between some groups of residents and the local government (Križnik, 2014).

In contrast to Poblenou, where the majority of residents stayed in the locality and part of the residential and industrial buildings were preserved, Wangsimni was completely demolished. More than ten thousand residents, or about 45% of its total population in 2004, have been forced to leave the locality over the past decade (Table 2). During this period, the Seongdong-gu district, where Wangsimni is located, has only seen a minimal decrease in the population (SMG, 2015a). Among those that left were mostly tenants from low-income households. Due to the rising housing costs, these residents have little chance of returning once the construction of WNT is completed (Lee, 2009; Kang, 2012). In this regard, WNT differs little from earlier urban development in Seoul, where fewer than 20% of old residents usually return to a new neighbourhood (Shin & Kim, 2016). Such massive displacement of residents can have a highly negative impact on social sustainability in localities (Manzi et al., 2010).

The transformation of Poblenou and Wangsimni also resulted in the decline of jobs in the traditional industrial and service sectors. In 1999, 1,661 industrial establishments accounted

for 23% of all establishments in Poblenou. After 22@ got underway in 2000, their number declined by 21.6% to 1,302 by 2004 and then continued to decline over the following years (Ajuntament de Barcelona, 2008). Although 56,000 new jobs were reportedly created during the 2000s (Ajuntament de Barcelona, 2012), these were mostly taken by new residents or commuters and are inaccessible to those residents that used to work in traditional industries and services. The situation in Wangsimni was even more difficult, where industrial establishments accounted for 40.5% of the total in 2004 (Seongdong-gu District Office, 2006). Most of them were very small and organized as a networked industrial cluster, where physical proximity and direct contacts were essential for businesses (Cho & Križnik, 2017). After the large-scale demolition of Wangsimni, it was impossible to preserve these social and productive networks, and many were forced to relocate or close down. By 2012 there was virtually no industry in Wangsimni anymore. Earlier studies suggest that the traditional industrial and service sectors in Barcelona and Seoul had an important impact on the formation of social cohesion in localities (Nahm, 2001; Marrero Guillamón, 2010). Their decline negatively affected both economic and social sustainability in Poblenou and Wangsimni.

In contrast to Poblenou, where grassroots mobilization against the economic and social consequences of new urban development started as early as 2000, the residents in Wangsimni initially supported WNT. Although they perceived it as a good place to live, they also saw Wangsimni as an underdeveloped area lacking business opportunities. This, in turn, made them initially support the plan (Table 3). Kim (2010) suggests that this support was also related to the fact that the local government managed the planning, which made the residents believe that WNT was presumably about public interests. Rising property values, which the residents expected would bring them significant financial gains, additionally contributed to their support. From 2002 to 2007, the land prices in Wangsimni increased by 111%, whereas the average increase of land prices in Seoul was 55% during the same period (Kang, 2007). This significantly changed after 2006, according to the interviewees, because of the slow implementation of the plan, financial losses, rising housing costs, and corrupt practices of redevelopment associations. As a result, some property owners and groups of tenants started actively contesting the plan's implementation (Kim, 2010; Križnik, 2014).

The survey shows that, although at different points, the residents of Poblenou and Wangsimni perceived the new urban development as being in the interest of property owners, private corporations, or the local government, rather than in their own interest (Table 3). The fact that 22@ was planned without citizen participation and that the local government initially made little effort to involve residents in decision-making further strengthened this perception in Poblenou (Degen & García, 2012). For the majority of residents, the main problem was not the urban development itself, but the lack of their involvement in decision-making (Oliva, 2003; Marrero Guillamón, 2010). The rapid urban development on the one hand and slow improvement of social amenities on the other intensified the negative perception of 22@ according to the interviewees. In contrast to Poblenou, the local government in Seoul tried to involve residents in planning WNT. However, the slow process of citizen participation with few tangible results, along with pressure from redevelopment associations to build WNT as quickly as possible, forced the local government to finally exclude residents from decision-making. This was beneficial for speculative property owners and private corporations but "significantly unfair for property owners who are against the project or for renters" (Kim, 2010: 154). Lee (2006), however, points out that the actual involvement of residents was below expectations. Some had no time, whereas others might have realized that they had no voice in a process dominated by redevelopment associations.

It is not surprising that the survey respondents perceived the transformation of their neighbourhood rather negatively, although many were not very familiar with the details of both plans. Only 6% of survey respondents in Poblenou believed that 22@ reflected residents' interests, whereas 53% thought that the plan was about the interests of private corporations and the local government. In Wangsimni 37% of respondents, most of them property owners, believed that WNT was in their interest (Table 3). The survey findings and interviews suggest that 22@ and WNT have consequently contributed to growing distrust between the residents and public institutions, which does not contribute to social sustainability (Manzi et al., 2010; Dempsey at el., 2011).

5 Conclusion

There are differences between 22@ and WNT in terms of the planning approach, stakeholders, and institutional contexts. The former is an example of comprehensive long-term urban regeneration, which aims to integrate new urban development with the existing social and urban fabric in Poblenou. The local government initially prepared and implemented the plan in partnership with the private sector without much citizen participation. The latter is an example of short-term urban redevelopment, where the locality was completely demolished and replaced with new urban development. Although the residents were partly involved in decision-making at the begin-

ning, it was the private corporations, supported by the local government, that dominated the planning and implementation process. In spite of these significant differences, the research results suggest that 22@ and WNT had similar consequences for social sustainability in the locality, especially on social cohesion and the involvement of citizens in decision-making.

Everyday life in Poblenou and Wangsimni used to be characterized by strong social connections and place attachment, as well as a distinct local culture and collective identity. Both of the planning approaches, however, did little to sustain these social and cultural structures, which are important for strengthening social cohesion in the locality. New urban development, which led to the demolition of existing residential and industrial areas, loss of jobs in traditional industrial and service sectors, decline of communal life, and rising housing costs, contributed to the decline of social cohesion in Poblenou and Wangsimni rather than strengthening it. Although 22@ and WNT did create new jobs, provide new housing and public space, and improve social amenities and infrastructure, this was not equally beneficial for everyone, which has in turn negatively affected the perception of the transformation among some groups of residents. These perceived the new urban development as mainly being in the interests of the local government and private corporations, which has consequently weakened their confidence in public institutions. This was further undermined by the exclusion of the residents from decision-making.

Social sustainability is a rather multifaceted concept that is not easy to assess. This is even more difficult in the case of ongoing urban development, such as 22@ or WNT, where long-term consequences cannot yet be fully observed. Nevertheless, the lack of citizen participation along with a decline in social cohesion – two major dimensions of a localized social sustainability agenda – has been clearly identified in this study. Although there are important differences between the two planning approaches, in both cases the failure of 22@ and WNT to address social sustainability was a result of speculative urban development, where the transformation of deprived urban areas was instrumentalized to attract investments, strengthen economic competitiveness, and improve the global appeal of the city as a whole. Both plans were legitimized in public as seemingly beneficial to all citizens, whereas in reality the main beneficiaries were property owners and private corporations. The findings therefore show that speculative urban development can negatively affect social sustainability, regardless of the planning approach used. However, this study is limited due to the ongoing transformation of Poblenou and Wangsimni. A follow-up study would be needed to determine subsequent changes in the planning approach over a longer period and fully assess the long-term impact of the transformation on social sustainability in Barcelona and Seoul.

Blaž Križnik
Hanyang University, Graduate School of Urban Studies, Seoul, Republic of Korea
E-mail: blaz@hanyang.ac.kr

Notes

[1] This study uses English terms for the particular planning approaches used in Barcelona and Seoul. Although 22@ was introduced as an urban renovation project (Catalan: *renovació urbana*), the English documents and literature refer to it as *urban regeneration* (Ajuntament de Barcelona, 2000; 2012; Charnock et al., 2014). WNT is referred to as *urban redevelopment* (Korean: *dosijaegaebal*; SMG, 2010; Kim, 2010; Križnik, 2014).

[2] In Barcelona the interviews included six interviewees representing civil society (the Poblenou Neighbours Association, the Historic Archive of Poblenou, the Commission Against 22@, and Forum Ribera del Besòs), three representing the local government (the Barcelona City Council, the Sant Martí District Council, and Barcelona Regional), one from the private sector (Network 22@), and two experts (UPC and IaaC). In Seoul five interviewees represented civil society (from the Committee for Community Development in Wangsimni, the Korean Council for Local Agenda 21, KOCER, and the Hope Institute), three were from local government (SMG and the Seoul Museum of History), four represented the private sector (the 2nd and 3rd Redevelopment Association in Wangsimni, the Association of Wangsimni Industry and Merchants, and Dongyang Purena), and four were experts (SDI, SNU, UOS, and Konkook University).

[3] The administrative units of *El Poblenou* and *Wangsimni 1-dong* were most affected by 22@ and WNT. In 2008 and 2006 they had populations of 30,949 and 14,099, which was the basis for the survey sampling (Ajuntament de Barcelona, 2008; SMG, 2015a).

[4] Barcelona and South Korea formalized these planning approaches in 1976, when the Barcelona City Council passed the General Metropolitan Plan, which provided a legal framework for urban regeneration of deprived urban areas, and the Urban Redevelopment Act was introduced in South Korea (Degen & García, 2012; Kim, 2013).

[5] Sindosi refers to new cities built in the Seoul metropolitan region in recent decades to address shortages in housing, social amenities, and infrastructure in Seoul.

[6] Cheonggyecheon Restoration is another strategic project, introduced in 2002, which transformed the former Cheonggye Expressway into a five-kilometre-long urban park, with the restored Cheonggye Stream at its centre. Although it greatly improved the environmental conditions in downtown Seoul and restored part of the historical and cultural heritage, it has also been criticized for lacking environmental authenticity and contributing to the commercialization of nearby areas (Križnik, 2011).

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Mateja ŠMID HRIBAR
Jani KOZINA
David BOLE
Mimi URBANC

Public goods, common-pool resources, and the commons: The influence of historical legacy on modern perceptions in Slovenia as a transitional society

This article aims to study and clearly define the terms *public good*, *common-pool resources*, and *the commons*. Using path dependency analysis, interviews, and workshops among the general public and experts, we highlight the perception of public goods and the commons in Slovenia as a transitional society. The analysis reveals that the general public's understanding of these terms is still strongly influenced by communist socialist-era emphasis on social justice, equality, and access to goods for everyone, which can be at odds with the right to private property. Inadequate governance of goods that are considered public goods, but are in fact common-pool resources, can lead to conflicts and degradation of common-pool resources, which results in the loss of advantages providing wellbeing. Because people's lives depend on subtractable natural resources, it is necessary to raise awareness about them among the general public and professional community, emphasize their vulnerability, and explain that they cannot be accessible to anyone in unlimited quantities. Furthermore, in an international context, using the Slovenian case, we seek to improve the understanding of human behaviour and expectations concerning public goods and common-pool resources in post-communist transitional societies.

Keywords: public good, common good, common-pool resources, the commons, common property, space, governance, management, transitional society, Slovenia

1 Introduction

The cultural landscape, either rural or urban, as a living space offers goods at various levels and for various groups of people. Owners are particularly interested in its economic aspect, whereas nonowners have their own expectations in terms of public and common goods (Šmid Hribar et al., 2015). Due to the recent past and the transitional state of Slovenian society, part of the general public in Slovenia believes that goods such as nuts, berries, and mushrooms, urban green areas, river banks, shores, and similar belong to everyone, and they are considered a public good. This is contrary to the belief of landowners (i.e., mostly farmers), who want to restrict the use of these goods. The misunderstanding arising from the perception of public goods pertains to urban areas as well. The distinction between the meanings of the terms *public good* and *common good* is not clearly drawn. The general public mostly uses the terms interchangeably. However, the term *public good* prevails and is used hereinafter in this article. The confusion is even greater regarding the goods typology, according to which in economic and environmental protection discourse the key characteristics of a good are its low/high excludability and low/high subtractability (Ostrom & Ostrom, 1977; Ostrom, 2005). Rather than a public good, the goods mentioned above are, in fact, common-pool resources (CPRs) because they are difficult to exclude and have high subtractability of use.

Rather than checking the academic terms *public good*, *common good*, and *CPR* among the general public and experts, this article draws attention to the fact that the general understanding of a public good – irrespective of terminology – and the related rights is at times inappropriate and is the result of the past perception of entitlement to these goods. On the other hand, the pressures from owners to restrict access to these goods are growing stronger, generating a gap between private property rights and the privileges gained under the communist[1] system. In fact, the privileges granted in the communist era have conferred advantages that current legislation preserves, and it thus restricts landowners in the use of certain goods. Article 67 of the Slovenian Constitution (Sln. *Ustavni zakon* . . . , Ur. l. RS, no.75/2016) provides that the manner in which property is acquired and enjoyed shall be established by law to ensure its economic, social, and environmental function. Accordingly, we hypothesize that Slovenian society, which is a transitional society, considers many freely accessible goods in the cultural landscape – which are, in fact, CPRs – to be public goods that everyone is entitled to, whereby they come into conflict with private property rights. We assume that this is a legacy of Slovenia's recent past; that is, a result of political, ideological, economic, and social changes.

A lack of knowledge about CPRs and their mismanagement can lead to conflicts and resource degradation, resulting in the loss of the advantages promoting wellbeing. In transitional societies like Slovenia, there is a need for a clear definition of the terms *public good* and *CPR*. This will provide valuable help in understanding that some goods, even if they are openly accessible, are not a public good – they are subtractable and vulnerable, and constant open access to all cannot be taken for granted. Appropriate understanding of the distinction between public goods and CPRs is important because it affects the expectations and behaviour of the public toward the goods that play a key role in providing wellbeing. Such goods are CPRs mostly because owners do not restrict access to them, which is because access to these resources is a) difficult to restrict (e.g., forests, nuts, berries, and mushrooms) or b) they are traditionally not fenced off in Slovenia. The objectives are:

1. To explain the misunderstanding in the perception of public goods and CPRs in Slovenian transitional society, and to show how this is reflected in the conflicts related to access to CPRs;
2. To provide insight into what is considered a public good and a common good by the general public and experts in Slovenia; and
3. To draw attention to the clear distinction between public goods and CPRs to understand and raise awareness about the fact that openly accessible goods that are CPRs are not public goods and therefore cannot be accessible to everyone in unlimited quantities.

2 Theoretical background

In Slovenian legislation, the term *public good* is still not clearly defined; instead, it is used inconsistently and unsystematically (Vugrin, 2005; Šmid Hribar et al., 2015). When searching for a definition of *public good*, in economic and environmental protection discourse researchers in the second half of the twentieth century applied the criteria of its (non)excludability and (non)rivalry (Samuelson, 1954, cited in Ostrom, 2010; Musgrave, 1969, cited in Desmarais-Tremblay, 2014, which were later narrowed down and replaced by the criteria of low/high excludability and low/high subtractability of use (Ostrom, 2010). By combining the criteria of (non)excludability and (non)rivalry, Musgrave and Musgrave (1973, cited in Desmarais-Tremblay, 2014) used a theoretical model to identify four types of goods, where along with private and public goods two other types were identified: goods whose consumption leads to no subtractions, but are not accessible to everyone (excludable), and goods that are subtractable, but where exclusion from consumption is difficult. The term *common good* was first used for the latter category. Despite being part of western political thought since ancient Greece (Lee, 2018) and a widely

used concept as addressed by most political thinkers (Dupré, 1993), the concept of the common good is loose, imprecise, and prone to political manipulation (Jaede, 2017). According to Mansbridge (2013), the meaning of the concept is essentially contested. What makes the issue even more challenging is that the notions of common good, public good, and public interest are often used interchangeably (Mansbridge, 2013). Due to its low/high excludability and subtractability, this category of goods attracted researchers' attention. Vincent and Elinor Ostrom (1977; Ostrom, 2005) and their colleagues left a significant mark on this category by naming it common-pool resources, or CPRs. A CPR is defined as "a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use" (Ostrom, 1990: 30). This characteristic does not depend on socio-political factors, but it is inalienable to CPRs, albeit not widely recognized. Due to their free accessibility, the term *CPR* is often used interchangeably with *public good*.

The lack of knowledge of CPRs leads to mismanagement or misuse, which further leads to inappropriate legislation. This can lead to deterioration or even depletion of resources, as highlighted by Garrett Hardin in his famous essay "The Tragedy of the Commons". In this essay he underlined the fateful human trait according to which individuals act according to their own self-interest. Overfishing in the Adriatic Sea (Fromentin, 2009; Colloca et al., 2013) and managing denationalized forests in Slovakia (Kluvánková & Gežík, 2016) are two recent examples. Excessive use of CPRs and inappropriate activities have tangible socioeconomic consequences (Rodela, 2012). Hardin's approach was successfully challenged by Elinor Ostrom (1990), who stated that the tragedy of the commons can be avoided by appropriate governance. Ostrom (1990, 2010 emphasized that neither the market (i.e., the neoliberal model) nor the state and private entities via concession contracts managed to provide desired solutions for sustainable governance of CPRs. Based on many international cases, she found that CPRs can also be governed by local communities (Ostrom, 1990, 2010. Ostrom won the Nobel Prize for her conclusion that, when facing a limited resource, people are able to act and collaborate for the common benefit (Ostrom, 2010; Anderies & Janssen, 2013). In Slovenia these types of collaboration are known as agrarian communities, which governed and managed common lands for centuries (Vilfan, 1996; Petek & Urbanc, 2007; Bogataj, 2012). During the communist era they were disbanded; however, they have been reinstated since Slovenia's independence. The notion of the commons adds confusion to the terms *public good* and *common good*. It relates to jointly owned goods that are governed by communities, which use collective actions with a specific set of rules, and they are frequently misinterpreted as a common good. McKean (2000) pointed to this confusion and emphasized that common property should be classified as a form of shared private property. According to the author, it is necessary to distinguish between goods, rights, and entities/owners holding rights. These categories are either private or public.

In Slovenia, the confusion related to the terms *public good* and *the commons* is predominantly due to historical and institutional contexts. Such an effect is called path dependency, which is characterized by a sequence of historical events in a place, leading to the current institutional patterns or specific chains of events. By identifying historical events in an area and their interactions, one can determine the spatial, social, and other patterns therein (Godina, 2015). According to Heinmiller (2009), relatively little attention has been paid to path dependency in studying collective actions among resource users, although this can importantly affect governance. An analysis of common land property practices in the historical context of Portugal (Lopes et al., 2013) demonstrated that the current status of common land is closely connected with key historical periods. At the same time, it revealed the sequence of shaping the relations toward resources and rules that led to various land and legal forms of common land. According to Godina (2015), the significance of path dependency has been overlooked in planning and implementing social changes in post-communist societies, including Slovenia. As the main reason she identifies the ideologically influenced perspective on history, which is based on the idea of creating a discontinuity with communism. The same can be said for the communist or industrial society in relation to the agricultural society prior to 1945. Additional confusion is caused by two key concepts from Slovenia's recent past: social ownership and workers' self-management. The Associated Labour Act (Sln. *Zakon o združenem delu* Ur.l. SFRJ, no. 53/1976), which introduced the concept of social ownership, does not provide a definition but rather the following comment by Grahek (1988: 14): "Workers thus appropriate part of income, but this is labour-based rather than ownership-based." Independent property management formed the basis for workers' self-management that was put into force in 1950 (Zakon o upravljanju . . . , Ur. l. FLRJ, no. 43/1950). Both concepts, albeit with a different meaning, are still embedded in people's consciousness (Toplak, 2014) and affect the perception of goods. At least to a certain degree, these findings can be generalized to other post-communist countries of central and eastern Europe (Premrl et al., 2015, Markuszewska, 2018), where, due to socioeconomic changes as a consequence of regime changes and government decentralization, many gaps emerged between property legislation and rights in practice. The divide between *de jure* and *de facto* in managing various goods leads to the erosion of general interests to the benefit of individuals, causing deterioration and reduction of the stock of common-pool resources (Sikor, 2004).

3 Methods

In Section 4, the path dependency concept is used as a methodological framework and, based on a review of the existing literature, we identify three historical periods affecting the perception of the terms *public good* and *the commons* in Slovenian transitional society. Using this approach, we draw attention to the role of the (in)appropriate understanding of natural resources' characteristics and show that they can be governed sustainably. Section 5 lists cases of public and common goods in pilot areas and emphasizes the advantages and conflicts resulting from these goods. We were interested in what locals in pilot areas and experts consider a public good and what they consider a common good. In the autumn of 2015 we carried out a workshop with locals in each of the three pilot areas (the local communities of Bevke, Čadrg, and Kosovelje) on benefits of the landscape and public and common goods in their settlements. Between March and November 2016, we carried out thirty-one in-depth structured interviews with locals and twenty-three interviews with public sector stakeholders whose work indirectly or directly deals with landscapes (in terms of rural development, protected areas, natural and cultural heritage, agriculture, forestry, and hunting). The interviews lasted fifty-three minutes on average and consisted of three sets of questions concerning an individual's perspective on the cultural landscape, in which the third set contained questions on public and common goods in the landscape, their benefits, and potential conflict situations.

4 The impact of path dependency on understanding public goods, common-pool resources, and the commons in Slovenia

In Slovenia one can distinguish between three important historical periods connected with broader political, economic, and demographic changes. Basing his work on the sector theory (Small & Witherick, 1986), Klemenčič (1989, 1997) writes about various development stages: demographic, socioeconomic, geographic, and other stages that left their mark on the landscape and people. Of special interest are the socioeconomic stages that, through changing the shares in employment sectors, suggest a transition from an agricultural and industrial society to a post-industrial (information) society. Until the 1960s, Slovenian society was mostly agricultural, which was followed by a rapid but brief period of industrialization until the 1990s, which was then followed by tertiarization of society. The communist government after the Second World War and the transition to the market economy after independence in 1991 played a decisive role. Accordingly, we decided to demonstrate the evolution of the perception of public goods and the commons across three historical milestones: the agricultural period until the end of the Second World War (1945); communism, collectivism, and industrialization (1945–1991); and independent Slovenia after 1991, characterized by tertiarization of the economy, individualization of society, and transition to a market economy.

4.1 Agricultural society (until 1945)

Slovenia's agricultural society was economically based on the primary sector (agriculture, hunting, fishing, and forestry). Fragmented private property prevailed, and to a limited extent pastures and forests were owned by village communities, where the use of these goods was shared (Vilfan, 1996). Because communities depended on their resources, they were generally careful not to deplete or damage them (Rodela, 2012). Slovenia has a rich tradition of common lands that had great economic significance in terms of livelihood, not only for individual families but for entire villages (Petek & Urbanc, 2007). Common lands date back to the period of tribal communities, and in some places they have been preserved since feudalism (Vilfan, 1996). The General Civil Code (German: *Allgemeines b*ürgerliches Gesetzbuch) of the Habsburg Monarchy, which entered into force on 1 January 1812, distinguished between a) public goods, which covered things available to all citizens (e.g., public roads and watering places), b) municipal goods, from which residents benefited, and c) municipal property, from which municipal costs were covered (Vilfan, 1996). However, Vilfan points out that the various types of common property are difficult to classify according to these legal categories and that the right to common or municipal goods differed from one place to another. There are several regional and diachronic versions of the umbrella terms; common lands were called *komunšna*, *komunela*, and *gmajna* (Vilfan, 1996: 237) and agrarian communities were called *soseska* (Petek & Urbanc, 2007), *sose(d)ska*, *srenja*, *jus*, and *skupnina* (Bogataj, 2012). Along with governing common lands, the agrarian community was in charge of managing and maintaining roads and watering places, for example (Ravnik, 1998). By the end of feudalism, the rights to common lands were more or less uniform and depended on a person's affiliation with a local community, but afterwards these rights started to differentiate. Vilfan (1996) emphasizes that the remains of the former village communities were preserved in the cases of collective governance of common lands. The economic aspect prevailed in their governance, which was environmentally sustainable due to the low level of technological development. Nevertheless, there were practices that led to depletion or even loss of natural resources. Such a case is peat in the Ljubljana Marsh. In the early nineteenth century, right before intensive drainage, there were 1,500 hectares of peatland in the marsh (Pavšič, 2008). The Franciscan Cadas-

Figure 1: Peat cutting and drying in the Ljubljana Marsh (source: archives of the Ljubljana Marsh Protected Landscape Area).

tre shows that between 1824 and 1827 many wet meadows and pastures were common land (Šmid Hribar, 2016). Due to drainage and division of the land after 1830, the former common pastures became privately owned. In the second half of the nineteenth century, the peatland was intensively exploited by landowners for economic gain. Despite estimates that the peat reserves would suffice for another 229 years, the peat was depleted in a few decades and consequently the elevation of the marsh decreased (Melik, 1927). The flood risk in the Ljubljana Marsh increased, the functions of the landscape and ecosystem services changed, and the consequences are felt by all current residents (Šmid Hribar, 2016).

4.2 Industrial society (1945–1991)

The communist period, which was accompanied by significant structural and ideological reforms of the social, political, and economic system, had a significant impact on today's perception and governance of public goods and the commons. Nationalization and the resulting expropriation of major landowners are particularly important. The introduction of a land maximum allowed them to keep a maximum of thirty-five hectares (Zakon o agrarni . . . , Ur. l. LRS, no. 10/1948), and from 1953 onwards only a maximum of ten hectares of arable land (Zakon o kmetijskem . . . , Ur. l. FLRJ, no. 22/1953). Along with farmers, expropriation also pertained to agrarian communities (Zakon o agrarnih skupnostih, Ur. l. LRS, no. 52/1947; Zakon o razpolaganju . . . , Ur. l. SRS, no. 7/1965), which interrupted the continuity in managing subtractable natural resources. Based on the case of the selected agrarian community of Škrbina, Rubije, and Šibelji, Czerny (2014) assumes that the lack of continuous collective governance of agrarian communities affected the perception of their members. He emphasizes the distinction between the governance objectives of both passive and active members of an agrarian community. Active members prefer economic goals, whereas passive members prefer environmental goals. Both categories of members consider communication an important part of the agrarian community's decision-making. They also recognize the importance of coordination regarding the use of common-pool resources, which, in their opinion, is essential to the agrarian community's survival in the long run (Czerny, 2014). The agricultural reform that caused the expropriation of major landowners also influenced the collectivization and establishment of major national systems, such as communist cooperatives, agricultural combines, and national forest companies (Jepsen et al., 2015; Premrl et al., 2015). There emerged a major gap between agricultural combines averaging two hundred hectares and agricultural holdings averaging 5.2 hectares (Drozg, 2007).

Similar to other eastern European countries, after the Second World War Slovenia saw the implementation of a centrally planned economy (Jepsen et al., 2015). Private ownership was replaced by state (national) and social ownership (Urbanc, 2002). The power of decision-making was transferred from individuals, agricultural holdings, and local communities to the state level (Partlič, 1989) and, through the introduction of social ownership and workers' self-management, to employees (Šetinc, 1979; Toplak, 2014). By introducing new forms of ownership, the centuries-old existing and emerging connections between subtractable resources and their local communities – that were, in fact, their managers – started to break down. As a consequence, knowledge about the resources' characteristics was gradually lost. To a great extent, the responsibility for their governance was transferred to state institutions that, because of their physical and/or cognitive distance, were not susceptible to sustainable management. According to Partlič (1989), Pučnik was one of the first critics of the postwar agricultural policy. As early as 1963, in his ideologically contested article "O dilemah našega kmetijstva" (Dilemmas in Our Agriculture), Pučnik questioned the goals of the agricultural policy, asking whether its aim was to regulate the food supply or to abolish private ownership and introduce collective cultivation (Pučnik, 1963, cited in Partlič 1989: 433). The negative attitude toward the farmer as a private producer (Urbanc, 2002; Razpotnik Visković & Seručnik, 2013) and the systematic establishment of industrial companies across Slovenia affected the extensive social layering from agricultural to non-agricultural activities and the related urbanization or demographic and spatial urban growth (Drozg, 2007). The fragmentation of land, also as a consequence of the agricultural reform, caused the formation of an extensive stratum of part-time farmers. Because of their weak economic power, they preserved small plots of land, diversity of agricultural landscapes, and extensive land cultivation (Urbanc, 2002), and they had an inhibitory effect in terms of intensive deagrarization. Thus, they played an important role in maintaining the traditional cultural landscape (Razpotnik Visković & Seručnik, 2013).

Figure 2: The residential green urban areas that started to emerge under communism are important urban commons, but they are also a CPR, and so they need to be governed (photo: Peter Stavanja).

With industrialization of society and deagrarization, urban space came to the forefront (Drozg, 2007), and the problem of governing the commons was also transferred into this space. The result of poorly thought-out structural and ideological reform is still evident in public green areas next to apartment buildings (Zlatkova, 2015; Simoneti, 2016), which ought to allow for a better quality of life and connect people with nature. Nevertheless, public green areas have become increasingly at risk in recent decades.

4.3 Post-industrial society (since 1991)

Slovenia became a post-industrial society in 1991, when the share of those employed in the service sector exceeded the share of industrial workers (Klemenčič, 1989, 1997). There were many consequences of the political, social, and economic changes that followed independence and the transition from a totalitarian communist social system to democracy and market capitalism (Drozg, 2007). This was paired with a value shift in society, associated with the reduced significance of collectivism and increasing individualization.

In terms of public goods and the commons, two types of processes are particularly significant. The former relates to the elimination of social ownership as the prevailing form of ownership relationships from the communist era, and the latter relates to the revival of methods of collective governance of subtractable natural resources, which was present in the agricultural period. The removal of social ownership was accompanied by denationalization and privatization, but there is an important distinction between the two. With the former, ownership was relatively clear and understandable: the properties were returned to the injured parties or their heirs (Premrl et al., 2015) and the condition before nationalization was re-established. With privatization, ownership is a much looser category, and social ownership and control of means of production were replaced by dispersed and non-transparent private property. Inappropriate reallocation of wealth and power among the members of the political and economic elite could result in uncontrolled privatization (Lorenčič, 2009) and mismanagement of state-owned assets. This is characteristic of new European Union member states (Tomšič & Vehovar, 2012). With the onset of the economic crisis, the focus of privatization shifted from state-owned companies to space (land), energy, and water, which can have characteristics of CPRs and are essential for survival. Denationalization revived methods for governing common land that existed prior to industrial society. The legislation adopted after Slovenia's independence allows for the reestablishment of agrarian communities and the restitution of properties and rights (Petek & Urbanc, 2007). However, due to the poorly conceived Denationalization Act of 1991 (Sln. *Zakon o denacionalizaciji*, Ur.l. RS, no. 27/1991), which allowed the restitution of land to heirs, agrarian communities face many problems in conducting ju-

dicial proceedings because this act has led to privatization of former common land, which will probably result in changed land use (Šmid Hribar et al., 2015). According to Cerar et al. (2011), the nationalization procedure under communism abolished or expropriated between one thousand and 1,500 agrarian communities, but the size of their land is not known. Premrl (2013) reports that 638 agrarian communities are registered in the administrative unit registers, of which 547 are potentially active; the procedures regarding property restitution have not been completed for forty-eight agrarian communities. A total of 77,486.47 hectares of land was returned to agrarian communities, which is 3.67% of Slovenia's territory (Premrl, 2013). Compared to the agricultural period, when the significance of common land was mostly economic, today the focus is on preserving and maintaining ecological balance, biodiversity, the open agricultural cultural landscape, and rural areas in general (Petek & Urbanc, 2007; Jepsen et al., 2015; Šmid Hribar et al., 2015).

The ongoing privatization process, transformation of utility services, and public services for public green areas can be linked to the poor maintenance of older high-rise neighbourhoods that are at risk of degradation if no comprehensive renovation is put in place. Without specific guidelines, criteria, and conditions for division of land among public and private entities, municipalities acted differently in relation to maintaining green areas. This is reflected in poor maintenance, appropriation, reorganization, and speculative purchases. Currently, the deterioration of quality in older neighbourhoods of Slovenian towns is not critical, but poor maintenance may lead to reducing the options for new developments, which may ultimately result in irretrievable loss of green areas (Simoneti, 2016). In Slovenia, a pressing concern is recreation in forests, including the widespread gathering of nuts, berries, and mushrooms. The dissatisfaction of forest owners is even greater when the gatherers and recreational users are not local. In the autumn of 2016, "chestnut wars" occurred in some places, when angry locals stood up to visitors because of their excessive gathering of chestnutss, negligent parking, and driving off-road (Omladič, 2016).

5 Public and common goods in Slovenia

5.1 Perception of public and common goods among locals

Most locals at the three case study sites are unable to clearly distinguish between the terms *public good* and *common good*. An interviewee from the village of Bevke stated: "I don't distinguish between the two well enough, I find them very similar." Sometimes one thing is understood as a public good and common good at the same time. Thorough interviews suggested that locals mostly define common goods and public goods in relation to ownership rights; that is, the rights to use a good. The majority feel that a public good is a good that is publicly owned, free of charge, and can be used by all residents. Accordingly, public goods are understood as public areas owned by everyone; for example, municipality-owned land, municipal properties, roads and paths, troughs and watering places for livestock, wells, ponds, infrastructure, waste bin areas, land owned by the Slovenian Farmland and Forest Fund, cemeteries, monuments, and viewpoints. Locals perceive water as a public good rather than a common good. They also consider services intended for everyone to be a public good (e.g., public health services, fire services, hospitals, and schools).

On the other hand, under common goods locals understand everything that the residents of a settlement use: natural resources, common lands, indoor or outdoor areas, infrastructure, and things that they made, built, or established in village community campaigns and for their use. According to one interviewee from Kosovlje: "A common good is everything that we do together." Shared air, water, peace, and access to heritage were given as the main examples of common goods. The key is shared ownership, common work, benefits, and use. Locals in Čadrg feel that a common good in their settlement is drinking water, the village water supply system, common land for grazing, ecological farming, cutting wood on common land, a viewpoint with a bench, an area for planting walnuts, a cheese factory, and troughs for watering livestock. In Kosovlje, common goods are shared wells for watering gardens, roads, footpaths, a pond, a bonfire area, a waste bin area, parking space, a private garden that the owners open and share with others, high-speed internet access via optic cable, new flags, mushrooms, and herbs. In Bevke, common goods are considered certain areas under nature protection, drinking water and a water reservoir, medicinal plants, and socializing in areas that were acquired together, such as a fire station, sports park, kindergarden, school, church, or cemetery. In the locals' opinion, all of these goods, similar to public goods, improve their quality of life and offer benefits.

In all three pilot sites, conflicts have arisen in relation to the use of public and common goods. In most cases, these were due to the mismanagement of water resources. In one case, the views differed about establishing control of drinking water quality and the related financial and management costs. The residents reached an agreement and adopted an appropriate solution. Another case was a deep pond with drinking water, which was almost destroyed by inappropriate construction work and where the water is no longer fit for drinking; there are attempts to restore the pond. The last case is connected with a water resource that the neighbouring municipality depends on. The

residents would permit the pumping of drinking water on the condition that the road running through the neighbouring municipality be improved. There is also the issue of forests that once belonged to the agrarian community, where there are hunting grounds owned by the state. The residents are against any tax burdens on land that they are not allowed to manage.

5.2 Perception of public and common goods among experts

Experts also had difficulty distinguishing between public and common goods. Nevertheless, in their work they mostly use the term *public good* and understand it as that which is necessary for survival, so that everyone must have access to it. These are roads, thoroughfares, forest roads, and paths – in short, infrastructure that allows for passability and good access to land, forests, and the coast. Others mentioned peace, views, a preserved landscape, space, forest and agricultural land, nature, preserved plant and animal species, water and water supply, schools, markets, trees, and parks. To a great extent, experts also connect public goods with ownership and frequently believe that, due to encroachment into private property, they are often a burden for owners. A spatial planning expert felt that complications also occur when the municipality is the owner of some public goods and the state is the owner of others, which shows the need for multilevel governance.

Reflections on common goods were rare and referred to things that are in shared use: roads, common pastures, meadows, forests, water, and the landscape – that is, similar to what was mentioned in relation to public goods. With regard to common goods, individuals emphasized that use can conflict with private interests, and a representative of cultural heritage protection services mentioned that "people become aware of a common good only when they start losing it." Another concept associated with common goods was agrarian communities managing common lands and goods (e.g., firewood) that the members of individual agrarian communities can use. Among the benefits of common goods, they specifically mentioned mushrooms, wild asparagus, recreation opportunities, and aesthetic values in an area.

Experts were also aware of the conflicts originating from excessive or large-scale use of such goods. They mentioned the conflict in using the area at the confluence of the Tolminka and Soča rivers, which is practically closed off in the festival season, during the entire summer. This angers the local population, which cannot swim or walk there without a ticket. In this area there is also a forest with special significance, but because of the large number of festival visitors it has been subject to degradation. Conflicts of interest are also identified on the banks of rivers, which are freely accessible in Slovenia. During the summer, visitors come from various parts of Slovenia and leave behind waste, which angers the residents even further. The problem of exploiting the Soča River has been stressed, with conflict between fishermen, kayakers, and rafters. A solution was found in the spatial and temporal zoning of various activities. A similar management mechanism will be probably necessary in relation to using the skydiving airfields because the increased number of skydivers and the time that they spend there disturbs the wildlife. Mushroom picking is also becoming a problem.

6 Discussion

The first objective of this article was to explain the conflicts in perceiving certain goods that the Slovenian general public considers public goods, which land owners disagree with. Path dependence analysis was used to clarify this ambiguity. It became evident that the perception of these goods is still strongly influenced by ownership and the terms *social ownership* and worker's *self-management* from the times of communist Yugoslavia, and to a smaller degree also by the events in the agricultural period. As expected, in the agricultural period, at least in areas with settlements that go back hundreds of years, people took into account the vulnerability of natural resources because their sustainable use was of key importance for the community's survival. When governing subtractable natural resources, the locals organized themselves into agrarian communities and, by following strict rules for using the commons, they avoided the tragedy predicted by Hardin (1968). They showed that subtractable resources can be governed so that the resource is preserved for future generations despite consumption of certain goods, which was later proven by Ostrom on various international cases (1990, 2005). Despite good practice examples, there were cases of overuse even back then, which were mostly due to poor knowledge of the resource in question and land division. A case in point is the destruction of peat in the Ljubljana Marsh in the second half of the nineteenth century, when the new owners were mostly motivated by economic gain. Subtractable natural resources (e.g., drinking water, ponds, forests, and pastures) have remained important for the quality of life to this day. At the Čadrg pilot site, the former practice of collective governance of subtractable resources was passed on to modern times. The locals successfully manage common forests, pastures, and water, but are hampered by the lack of understanding of the state, which, on the one hand, encourages them to register common forest lands in the land register, but it does not grant them the right to shared decision-making in wildlife management.

In the industrial era of Slovenia, which was then part of Yugoslavia, an ownership conflict occurred between farmers on the one hand and the state on the other, due to implementing the concept of social ownership. This concept must not be equated with the concept of the commons from the agricultural period because the concept of social ownership was based on labour whereas the concept of the commons was based on collective governance of jointly owned subtractable resources. According to Caffentzis (2010), the ideology of communism created the imaginary impression of sharing and co-management of social wealth by the citizens, whereas the reality was that most of this was based on restricted management by either bureaucratic or capitalist criteria. Similarly, Pučnik (1963) connected the abolition of private ownership in rural areas with social injustice and economic discrimination against the agricultural population. The abolition of agrarian communities and nationalization of common land after the Second World War was confirmed by Obeng-Odoom (2016), who finds that their existence is undermined by external, rather than internal, threats. In Slovenia these communities were not abolished under capitalism or imperialism, but, ironically, under communism. The transfer of ownership and/or governance onto public institutions has often proven to be problematic (e.g., Zlatkova, 2015; Simoneti, 2016). On the one hand, resources became publicly owned, but because people were not aware of their vulnerability they were often poorly managed, which resulted in deterioration. In rural areas this was reflected in the overgrowth of agricultural land due to ideological support for industrialization, and in towns and cities it was reflected in the degradation of common green areas near apartment buildings. The responsibility for the consequences of poor governance, or even a lack thereof, mostly lies with "remote" public institutions, which, due to their lack of knowledge and weak personal ties, often failed to see that such natural resources had characteristics of CPRs. The interviews with locals point to this ongoing conflict because they are mostly critical of the state's governance of subtractable natural resources (e.g., forests and water) and feel that the state is not a good manager in this respect.

As "resistance" to communist collectivism, post-communist countries eagerly adopted neoliberalism (Smith & Timár, 2010), in which the state has significantly less chance of directing local and regional development than in a planned economy (Drozg, 2005). The pressures of forest owners to limit the exploitation of nuts, berries, and mushrooms to owners only are well known (Kumer, 2017). Section 5.2 provided the example of closing the area at the confluence of the Soča and the Tolminka rivers during the summer festival, which is incomprehensible to the Slovenian public and is, in fact, usurpation of a common space that the locals use for walks and relaxation. The concessionaire officially paid for the right to close the area, but the municipality should also consider locals' right to the area and adjust its governance accordingly. The path dependency analysis in three periods revealed that the consequences of changing the impact and power of individuals, the community, and institutions concerning subtractable resource governance in Slovenia are still evident in the different perception of public goods and the commons and, as a result, in the various expectations of the public and owners regarding these goods.

Interviews with locals and experts offered insight into their perception of public and common goods, which was the second objective of this article. It turned out that they almost did not know the difference between the terms and perceived them as something that is freely accessible. The distinction is mostly related to property rights and economic benefit, bringing the meaning of *common good* closer to *the commons*. We assume that this is a consequence of the spatial and temporal contexts and processes that shaped, and continue to shape, the perception of the commons and its ownership (agrarian communities, nationalization, denationalization, etc.). Locals often equate common goods with common things, and they use the expressions synonymously. The commons is characterized by common property, where – depending on its (non)accessibility – a good can be a private good or a CPR, but not a public good. A forest owned by the agrarian community or green areas next to apartment buildings are CPRs, but this is not the case with a fenced-in common pasture or a shared cheese factory with limited access. In all three pilot areas, the locals dedicate significant effort to the existence and improvement of the commons; they volunteer in joint campaigns and are well aware that in improving the quality of life they mostly depend on themselves and their input, including financial. In recent decades they have used their own resources to independently build water supply systems, telephone and electric installations, and even roads. They invest in restoration and establishment of cycling and walking routes, clean the surroundings, restore dry stone walls, and maintain and build common spaces. There are some things that the locals are willing to share with each other, but they become upset when someone wants to benefit from their shared work and input. This suggests that the role of the commons in improving the locals' quality of life is important. A positive attitude toward working together to shape and restore the environment that the community manages is clearly a characteristic of Slovenian rural areas. In Slovenia, the commons is understood beyond common ownership because it relates to common village matters, which makes the community even stronger and builds local identity.

Among the experts, we perceived the connection of common goods with common use and institutions that manage common land (e.g., agrarian communities). They are well aware of the conflicts arising from the increased or undefined use

of certain goods (e.g., space, drinking water, and mushrooms) and they find that solving these conflicts of interest requires dialogue among everyone involved, which should be followed by multilevel governance. According to Rodela (2012), key decisions regarding CPRs in Slovenia are still made by public institutions (institutes, ministries, and agencies), and their sectoral policies and development programmes are implemented by relevant branch offices. This manner of CPR governance is a legacy of communism, in which the centralized state apparatus gained in power and importance. An alternative to this kind of governance is contemporary foreign models of complex CPR governance, based on various concepts such as co-governance (Somerville & Haines, 2008), multi-actor governance (Schut et al., 2014), and multilevel governance (Hooghe & Marks, 2003). The essence of these concepts is a mutual formation and representation of various communities to introduce more efficient policies concerning CPR governance.

The third objective of this article was to draw attention to the clear distinction between public goods and CPRs to understand that freely available goods that are CPRs are not public goods and therefore cannot be accessible to everyone in unlimited quantities. By stressing social and spatial justice, equality, and access to goods for everyone (Drozg, 2005), the communist era strengthened the public opinion that access to and the benefit of these resources (e.g., nuts, berries, and mushrooms, and access to the coast) is the public's inalienable right. The problem is that the public still perceives these goods as public goods and is not aware of the negative consequences of excessive or inappropriate use. This confirms Heinmiller's conclusion (2009) that past patterns can lead to deep-rooted perceptions, which are often connected with old rights. In the agricultural period in Slovenia, collective governance of subtractable resources was already in place. However, in the communist era, this type of governance was prohibited and replaced by a system that treated everything as social property, without being aware of the subtractability of natural resources. In the present day we feel the consequences of both practices, which conflict with one another and influence the current perception and expectations of the general public, the professional community, decision-makers, and landowners. However, despite the many weaknesses of the former communist system, the authors of this article have identified goods such as free access to riverbanks, lakes, and forests, walking in forests, footpaths outside forests, gathering nuts, berries, and mushrooms in permitted quantities, and so on as an important privilege of the previous system and an advantage that greatly improves wellbeing while not causing any damage to the owners. Similar privileges to land were pointed out by George at the end of 19th century (cited in Obeng-Odoom, 2016), whereas Ostrom and her colleagues generally did not address them. To maintain these privileges, it is crucial to raise awareness among the public that all of these goods are not a public good – that is, something that everyone has access to in unlimited quantities – but rather that these goods have characteristics of CPRs due to their free access and subtractability.

At the same time, we must raise awareness among owners about how ownership per se does not grant an unconditional right to the use of natural resources. Slovenia's general public is justified in fearing appetites for privatization, concessions, or licencing, which greatly threaten Slovenia's subtractable natural resources due to economic interests. Very telling resistance to such trends is the inclusion of the right to drinking water in the Slovenian Constitution (Sln. *Ustavni zakon* . . . , Ur. l. RS, no. 75/2016), although it should be stressed that the constitutional legislator still does not understand that, rather than a public good, water is a subtractable natural resource. This characteristic, which the Slovenian public perceives intuitively, was what drove the efforts to include the right to water in the constitution. The inclusion itself does not protect water resources – they remain vulnerable and subtractable. In May and July 2017, the Slovenian public was shaken by two ecological disasters that, along with soil and air, affected water resources. It was shown that the mere amendment of the legislative framework with associated regulations is not enough. Concrete adjustments, clear rules, control, and, ultimately, sanctions for improper water resource governance and management are necessary. A particular problem in Slovenia is the conversion of fertile land into industrial zones. Each such investment requires careful deliberation because fertile land is a natural resource and its degradation is irreversible. Due to the growing number of users and conflicts of interest, green areas near apartment buildings are particularly affected.

This article draws attention to the fact that if people fail to take into account the subtractability of a good they are at risk of depleting the good or resource. Sometimes, particularly from the aspect of the ecosystem, depletion can be caused by the division of the resource into smaller units. In order to avoid this, past generations developed collective governance systems with specific sets of rights and rules. They shared the yield (e.g., firewood), but not also the CPR stock (i.e., the forest in this case). This confirms the finding by McKean (2000), who states that the right to goods was privatized without dividing it into smaller parts. Social ownership in communism was based on this concept; the difference was that the right was not transferrable and ceased with termination of employment. A recent example of CPR governance in urban areas is green areas around apartment blocks. The residents become organized, and they grow bushes and trees without dividing the green areas because the individual parts of land would be too small to grow trees. Through rules, conditions, and sanctions, they

Table 1: Glossary

Slovenian term	English term	Brief explanation	Example
Javno dobro	Public good	A good that is neither excludable nor subtractable	UV radiation, peace, roads, safety, etc.
Skupni vir(i)	Common-pool resources (CPRs)	A good that is not excludable but is subtractable	Nuts, berries, and mushrooms, drinking water, access to the coast, freely accessible green areas in high-rise neighbourhoods, etc.
Skupno	The commons	A special form of jointly shared private property, managed by the community according to a specific set of rules; commons can be CPRs (e.g., nuts, berries, and mushrooms), but not necessarily, or a private good (e.g., a cheese factory)	A village walnut grove, common land, local community premises, community gardens, etc.

become involved in the governance and management of their green areas, which are CPRs rather than a public good. The lack of organization among residents can lead to degradation of green areas in their immediate surroundings. A group of people may even take it one step further; they may rent or purchase a piece of land and, for example, plant walnut trees there, as was the case in Čadrg, or fruit trees and vegetables in urban neighbourhoods. The produce grown on such land is not a public good. This is typical common property or the commons, but, although it is known who can benefit from it, in the case of free access and given their subtractability these goods have CPR characteristics. This is also the case with the produce from the urban orchard planted in Ljubljana's Vič neighbourhood, which has been vandalized several times due to poor governance. Even though it is located in a public area, it is not public good, but a CPR due to the good's subtractability and free accessibility. Similarly, blueberries, mushrooms, and chestnuts in the forest are CRPs rather than a public good. Table 1 provides a short explanation of the key terms and examples to avoid any further ambiguity concerning public goods, CPRs, and the commons, and to promote appropriate governance.

Finally, let us emphasize the role of ownership. As discussed in the theoretical background section, the key characteristics of goods lie in their low/high excludability and low/high subtractability, rather than ownership. However, the role of ownership becomes particularly evident in governance, when the owner can restrict access to the source or good. Because of economic profit for individuals or a minority, the privatization of a natural resource can lead to its depletion although the local community depends on it. It becomes of great importance who decides about the access to a resource and about how it is governed. Past generations were aware of how important it was for local communities to own the subtractable natural resources in their immediate surroundings. The residents of Čadrg are well aware of this because their efforts helped them preserve the right to govern their water resources. Duraippah et al. (2014) mention that lately in Japan the concept of the "new commons" has been put in place, when a group of individuals starts to manage abandoned overgrown areas.

7 Conclusions

The path dependency analysis revealed that the past socioeconomic systems undoubtedly influenced the present perception of public goods and the commons, which must be considered in future governance. Through common lands, the rich legacy of agrarian communities in Slovenia left behind a diverse governing system of subtractable natural resources. The communist legacy is reflected in stressing the right of access to goods for all residents, who perceive many goods as public goods. This belief can result in unjustified expectations. The additional influence of the former system is still found in the rigid and centralized state governance. The post-communist era resulted in denationalization, the revival of collective governance of subtractable resources, and also uncontrolled privatization of various goods, motivated by the desire for economic gain for individuals and minorities. In Slovenia this caused the general public's fear of water privatization, which drove efforts to include the right to water in the constitution. On the other hand, excessive gathering of nuts, berries, and mushrooms, and inconsiderate use of forests anger landowners and lead to chestnut and mushroom "wars", which are a consequence of the aforementioned historical factors.

By studying the perception of public and common goods among locals and experts, we found that the interviewees consider ownership to be the main difference between the two concepts, in which stakeholders make decisions in terms of their own participation or direct benefit. A common good is perceived by locals and experts as something that is owned, governed or managed by the local community, which brings the term closer to the term *the commons*. As soon as ownership is transferred to a public institution (e.g., a municipality or a ministry), it generally becomes perceived as public good.

In order to avoid conflicts, natural resource degradation, and potential loss of the privileges that improve wellbeing, we seek to raise awareness among the Slovenian general public and professional community about the distinction between public goods and CPRs. Understanding the distinction between these two concepts should be included in the educational system and other forms of expression. A detailed review reveals that not many goods fall within the category of public goods. Many natural resources were not at risk for centuries because people did not know how to use them or their use was negligible. Until awareness is raised among the general public and the professional community that, along with free access, the key characteristic of CPRs is the subtractability of their use, their governance will be inappropriate and can lead to unfavourable use, which will mostly affect the local communities that depend on the resource. The public must understand that many goods that are currently perceived as a public good are, in fact, CPRs, which are freely accessible, but nevertheless subtractable. The public must assume a conscientious attitude towards the use of these resources, which can by no means be taken for granted. Only proper governance with clearly specified rights of use can preserve and maintain CPRs, and so it is essential that the public understand the essence of public good and CPRs, as well as the role of collective governance in sustainable resource management. This understanding should be transferred from rural to urban areas and also be taken into account in governing urban spaces, such as green areas next to apartment buildings, public orchards, community gardens, and so on. Furthermore, in an international context, using the Slovenian case, we seek to improve the understanding of human behaviour and expectations concerning public goods and CPRs in post-communist societies in transition. Socioeconomic and political contexts with corresponding ideologies play a crucial role in this.

Mateja Šmid Hribar
Anton Melik Geographical Institute, Research Centre of the Slovenian Academy of Sciences and Arts, Ljubljana, Slovenia
E-mail: mateja.smid@zrc-sazu.si

Jani Kozina
Anton Melik Geographical Institute, Research Centre of the Slovenian Academy of Sciences and Arts, Ljubljana, Slovenia
E-mail: jani.kozina@zrc-sazu.si

David Bole
Anton Melik Geographical Institute, Research Centre of the Slovenian Academy of Sciences and Arts, Ljubljana, Slovenia
E-mail: david.bole@zrc-sazu.si

Mimi Urbanc
Anton Melik Geographical Institute, Research Centre of the Slovenian Academy of Sciences and Arts, Ljubljana, Slovenia
E-mail: mimi.urbanc@zrc-sazu.si

Notes

[1] As part of Yugoslavia, from 1945 to 1991 Slovenia had a one-party communist system of government with socialist socioeconomic policies. Therefore the term communism is used in the article.

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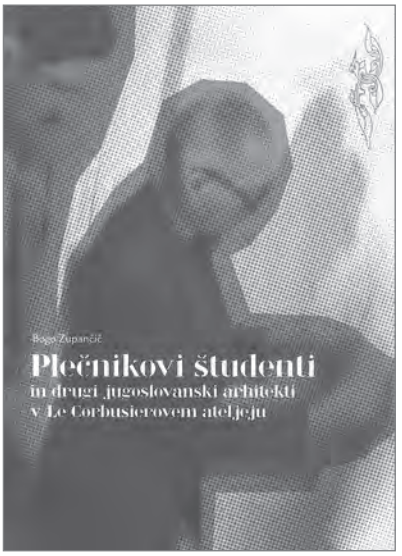
Breda Mihelič

Paris: A modern architecture Mecca and magnet for Plečnik's young students (Reflections on the book)

Title: *Plečnikovi študenti in drugi jugoslovanski arhitekti v Le Corbusierovem ateljeju* (Plečnik's students and other Yugoslav architects in Le Corbusier's studio)
Author: Bogo Zupančič
Publisher: Muzej za arhitekturo in oblikovanje (MAO)
Place and year of publication: Ljubljana, 2017
Number of pages: 232
[ISBN: 978-961-6669-47-4]



As the author mentions in the introduction, the release of this book commemorates three important anniversaries: the 130th anniversary of the birth of Charles-Édouard Jeanneret, known as Le Corbusier, one of the twentieth century's greatest modern architects; the sixtieth anniversary of the death of Jože Plečnik, the greatest central European architect of the twentieth century; and the hundredth anniversary of the birth of Edvard Ravnikar, the leading Slovenian modern architect, who in a way also represents a link between the first two.

This book is the result of thorough research in Slovenia and abroad, and a detailed review of extensive material scattered between Ljubljana, Zagreb, Sarajevo, Belgrade, Cambridge, and Paris (where an important part is held by the Le Corbusier Foundation). The author has been engaged with this important topic for over ten years. He first presented it in 2007 at an exhibition at the *Vžigalica* gallery in Ljubljana, he has held several talks and published several articles on the subject, and in 2017 he staged a major exhibition at the Ljubljana Museum of Architecture and Design titled Plečnik's Students and Other Yugoslav Architects in Le Corbusier's Studio in Paris.

This book provides the first-ever comprehensive presentation of this topic within the wider context of modern developments in architecture in Slovenia and abroad, especially Paris. As its author explains in the introduction, it is primarily intended for experts and connoisseurs. The fundamental question that the author, Bogo Zupančič, addressed is how Plečnik's students and other Yugoslav students that trained with Le Corbusier contributed to shaping Slovenian and Yugoslav urban-planning thought and practice before and especially after the Second World War.

The book is divided into three parts. The first part presents Plečnik's students that trained in Le Corbusier's studio between 1929 and 1940, the second covers other Slovenian architects and civil engineers that trained in Paris between 1925 and 1938, and the last part discusses Croatian and Serbian architects at this studio between 1927 and 1937. The work concludes with an extensive literature review, which will be of tremendous help to future researchers. The book is richly illustrated and many of the photographs, which have been collected from various sources in Slovenia and abroad, have been published here for the first time.

In the first chapter, the author presents seven architects that graduated under Plečnik and then left for Paris to work as draughtsmen in Le Corbusier's studio. He lists the following individuals based on the documents studied: Miroslav Oražem, Milan Sever, Hrvoje Brnčič, Marjan Tepina, Jovan Krunič, Edvard Ravnikar, and Marko Župančič. Traditionally, Slovenians had good relations and close contacts with France. At the initiative of Slovenian intellectuals, the French Institute was founded in Ljubljana as early as 1921 (i.e., soon after the establishment of the University of Ljubljana). Because of the close contacts and historical connections with France, and a good command of French, students were provided good opportunities to travel and also had access to French government scholarships. It is therefore natural that they used these opportunities well. Paris was the most attractive European and world cultural and art capital during the interwar period, and it drew artists, architects, and intellectu-

als from all over the globe. In addition to architects, many Slovenians studied and worked in Paris during the 1920s and 1930s, including the painters Veno Pilon and Nikolaj Pirnat, the writers Josip Vidmar, Bratko Kreft, and Ciril Kosmač, as well as other students, lawyers, engineers, and linguists, and certain politicians. The French Institute had an extensive library, where students could read the latest journals. As one of Plečnik's students, Janko Omahen, wrote in his book, this was also how students learned about Le Corbusier and modern developments in architecture, which they heard only little about from their teacher, Jože Plečnik. Plečnik was reserved regarding Le Corbusier and modern functionalism, and he more or less discouraged his students from engaging in modern endeavours, even though he paid close attention to developments in modern architecture, which, among other things, is also proved by his extensive library. On the other hand, his students were increasingly interested in modern developments. In 1925, they attended the International Exhibition of Modern Decorative and Industrial Arts in Paris, where they were completely swept away by Le Corbusier's Pavillon de l'Esprit Nouveau (*Pavilion of the New Spirit*).

Based on an exceptionally detailed review of sources and literature in Slovenia and abroad, the author proves that seven of Plečnik's students worked in Le Corbusier's studio before the Second World War: Miroslav Oražem, Milan Sever, Hrvoje Brnčič, Marjan Tepina, Jovan Krunič, Edvard Ravnikar, and Marko Župančič. Alongside these, there were also other Slovenians working there, including the architect Feri Novak, the civil engineer Janko Bleiweis, and most likely also the civil engineer Fran Tavčar. This was a relatively high number compared to architects coming from other, larger countries that worked at the studio. Because of their excellent knowledge of classical architecture and the drawing skills that they learned from Plečnik, Slovenian students were highly regarded by Le Corbusier. The author provides precise information on when individual Slovenian architects arrived at Le Corbusier's studio, how long they worked there, and which projects they were involved in. He also confirms this with some certificates signed by Le Corbusier himself, plans and sketches (mostly held by the Le Corbusier Foundation in Paris), photos, and correspondence. Zupančič dedicates a special chapter to the relationships between the Slovenian and other architects at Le Corbusier's studio, who came from all over the world. Slovenian architects kept in touch with some of them even after the war; thus, for example, the Swiss architect Alfred Roth was invited to give talks in Ljubljana and contribute articles to the journal *Arhitekt*.

Even before the Second World War, Plečnik's students used the experience they had gained in Le Corbusier's studio in numerous design competitions in their home country, where they won a series of prizes. This is also described in detail in the book. Among the most high-profile competitions was definitely the one for the urban development of Ljubljana in 1939, in which Ravnikar and Tepina directly applied some of Le Corbusier's urban-planning principles in their project proposals. Le Corbusier's orientation, which Slovenian architects already applied to some degree before the war, also prevailed in architecture and urban planning after the war, with a short intermezzo of communist-style architecture. The author describes this in three chapters, in which he highlights the plans for the Slovenian town of Nova Gorica and the Novi Beograd neighbourhood in Belgrade, and a series of architectural designs in Slovenia and elsewhere, and he discusses the inclusion of Slovenian architects in international organizations (e.g., UIA and CIAM), their participation in prominent international conferences and exhibitions, and staging of architectural exhibitions. Among the latter, the 1953 Le Corbusier exhibition held at the Ljubljana Museum of Modern Art and the 1956 exhibition *Stanovanje za naše razmere* (An Apartment for Our Conditions) staged at the unfinished *Kozolec* (Hayrack) building in Ljubljana met with an especially wide response.

The second part of the book presents architects (Plečnik's students) that trained in Paris, but did not work in Le Corbusier's studio: Dušan Grabrijan, Boris Kobe, and Gizela Šuklje. In addition, it also presents the architect Feri Novak and the civil engineers Janko Bleiweiss and Fran Tavčar, who did work there. The author presents each of them separately, with designs that reflect Le Corbusier's influence.

In the third part of the book, Croatian and Serbian architects: Zvonimir Kavurić, Ernest Weissmann, Jurij Neidhardt, Ksenija Grisogono, Krsto Filipović, Milorad Pantović, and Branko Petričić, that also worked in Le Corbusier's studio are presented in a similar manner. During the interwar period, Slovenian architects established significantly close ties with them, both privately and professionally via the journal *Arhitektura*, which was published from 1931 to 1934 as a joint publication of Slovenian, Croatian, and Serbian architects.

Bogo Zupančič's book is an exceptionally valuable document about the interwar period, when alongside the great Plečnik a new modern architecture was being born. Despite its seeming deviation from the great Slovenian mentor, it actually expanded the valuable skills and information that Plečnik imparted to his students with new ideas conveyed in the works of Le Corbusier and other pioneers of the modern movement. The author provides detailed descriptions of the young Slovenian architects' path from their home architectural envi-

ronment suffused with Jože Plečnik's personality to the world's art and culture capital, filled with new challenges, where a completely new spirit of modernism prevailed during the 1920s. It was a spirit filled with optimism after the end of the First World War and a desire to improve the world, to which the young architects believed architecture could also contribute its part.

Breda Mihelič, Urban Planning Institute of the Republic of Slovenia, Ljubljana, Slovenia
E-mail: breda.mihelic@uirs.si

Information about the book

The book's internet site:
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Stanovanjski zakon. Uradni list Republike Slovenije, št. 69/2003. Ljubljana.

Statistični urad Republike Slovenije (2007): *Statistični letopis 2007.* Ljubljana.

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urbana prenova urban redevelopment
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