

Centar urbane kulture Sinokoša

Galić, Tomislav

Master's thesis / Diplomski rad

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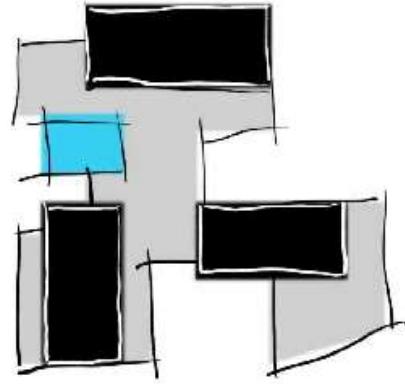
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CENTAR URBANE KULTURE SINOKOŠA

VIŠEKRITERIJALNA METODA DOBIVANJA PROGRAMSKOG ZADATKA

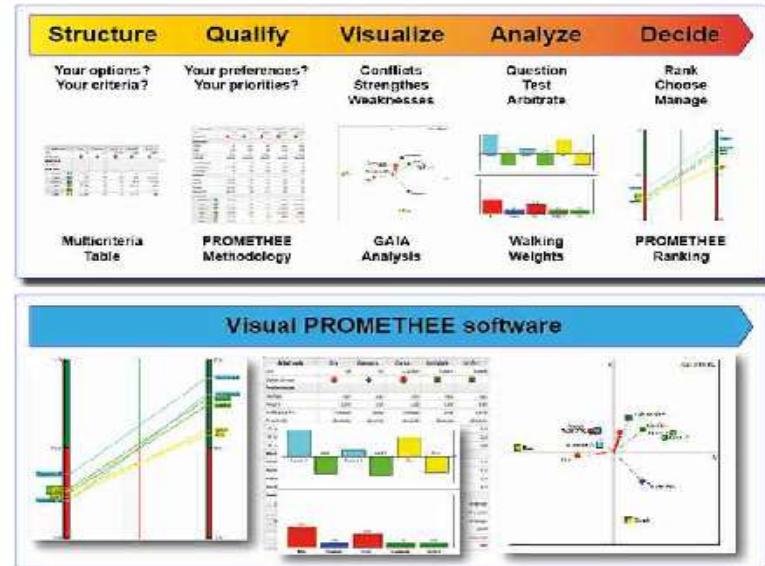
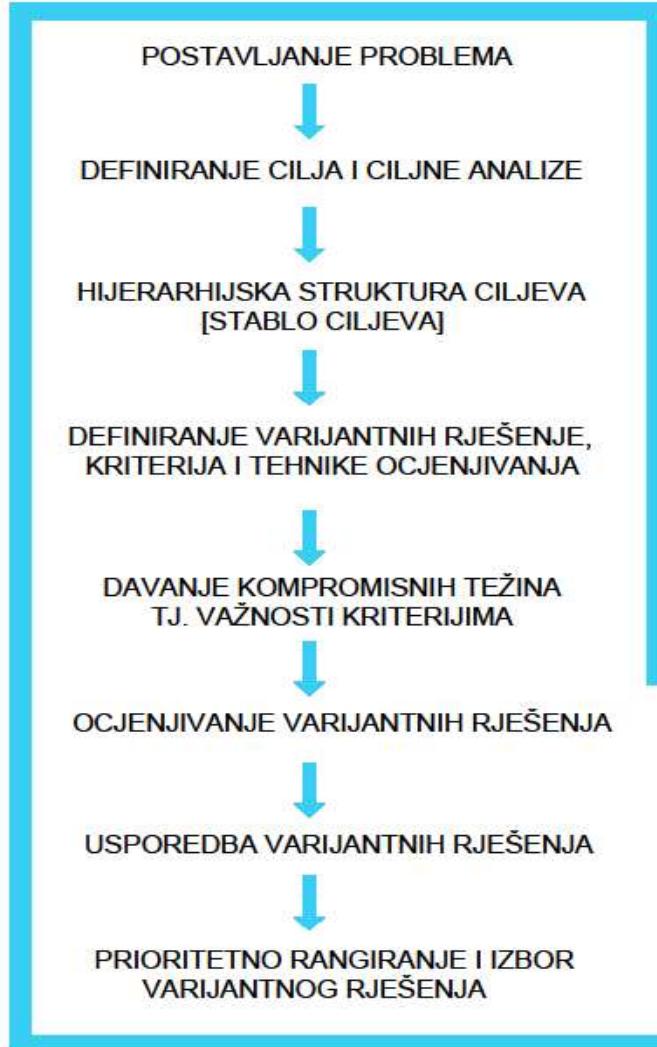


P R O M E T H E E

M E T H O D S

PROMETHEE METHODS logo

planiranje investicije



mogućnosti PROMETHEE softvera

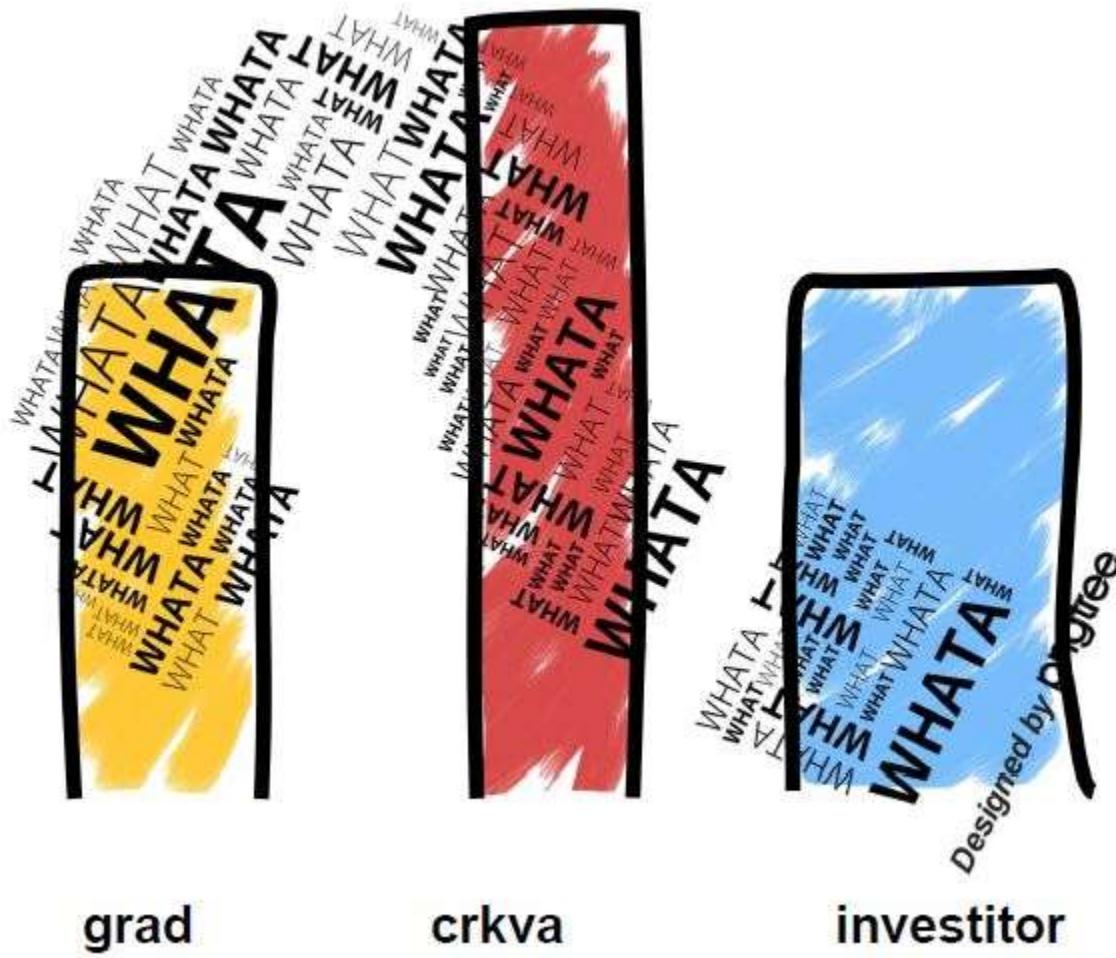
VKM
VIŠEATRIBUTNO PROGRAMIRANJE
PROMETHEE

postavljanje problema

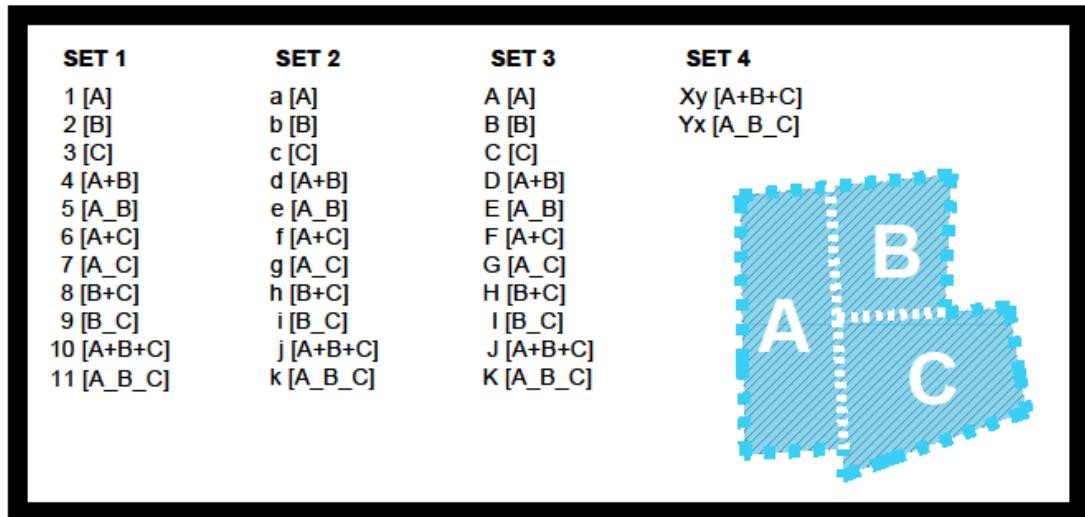


3 parcele, lokacija

definiranje cilja i ciljne analize



definiranje varijantnih rješenja, kriterija, tehnika

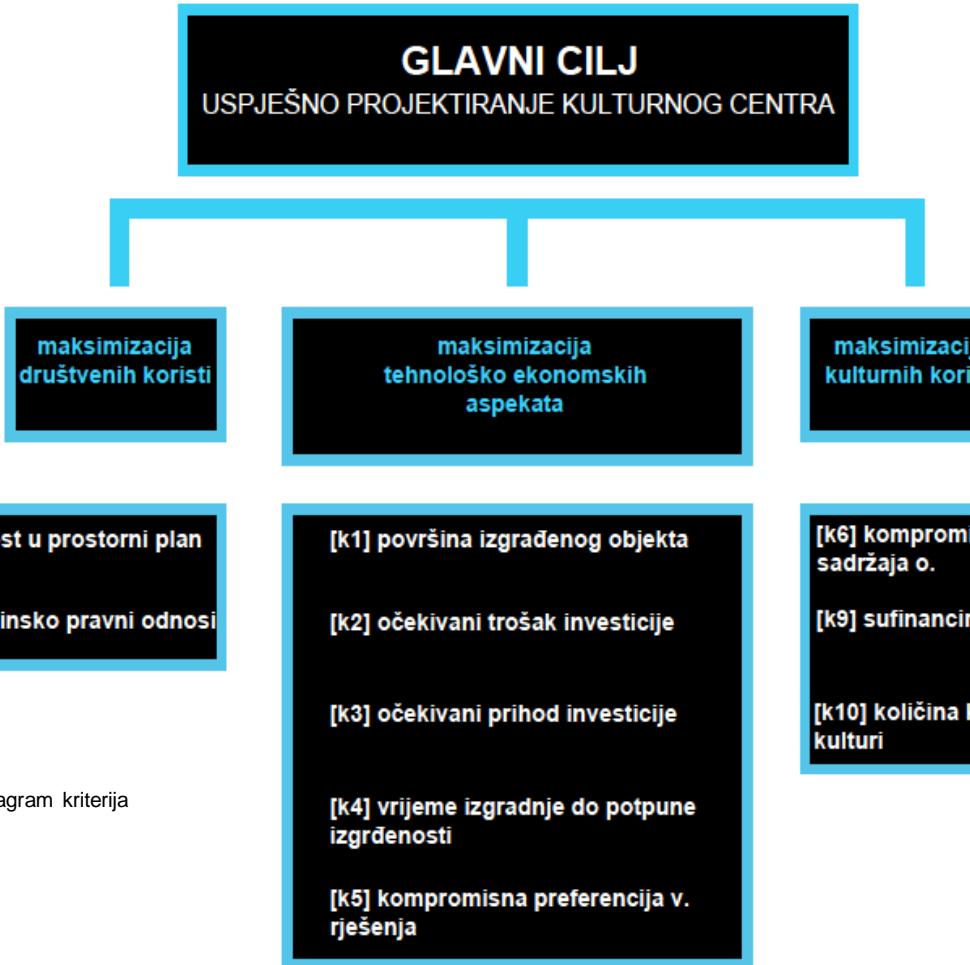


prikaz varijantnih rješenja i vlasništva

- [k1] površina izgrađenog objekta
npr. 1000 m²
- [k2] očekivani trošak investicije
npr. 1 000 000 €
- [k3] očekivani prihod investicije
npr. 2 000 000 €
- [k4] vrijeme izgradnje do potpune
izgrđenosti 12 mjeseci
- [k5] kompromisna preferencija v. rješenja
procjena dionika ocjenom 0-200
- [k6] kompromisna preferencija sadržaja o.
procjena dionika ocjenom 0-200
- [k7] uklopljivost u prostorni plan
da/ne
- [k8] čisti imovinsko pravni odnosi
da/ne
- [k9] sufinanciranje grada
da/ne
- [k10] količina kvadrata namjenjeno kulturi
5000 m²

prikaz raspisanih kriterija

hijerarhijska struktura ciljeva, vrednovanje ciljeva



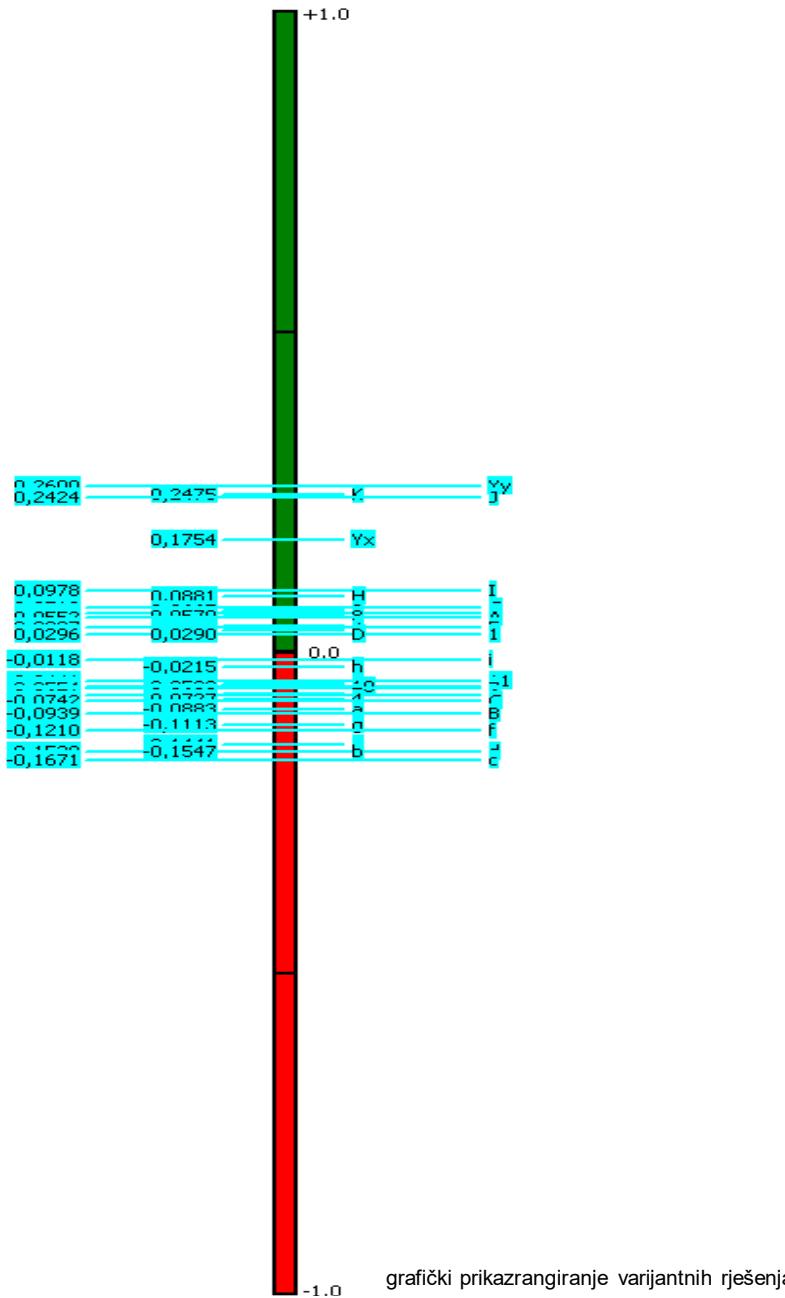
KRITERIJI	OCJENE			
	Crkva	Grad	Investitor	Ukupno
[k1] površina	7	10	8	8.33
[k2] trošak	0	3	0	1.00
[k3] prihod	20	0	77	32.33
[k4] vrijeme	0	7	11	6.00
[k5] preferencijaV	12	4	1	5.66
[k6] preferencijaS	6	11	3	6.66
[k7] prostorni plan	0	8	0	2.66
[k8] vlasništvo	37	5	0	14.00
[k9] sufinanciranje	0	10	0	3.33
[k10] kultura	18	42	0	20.00

tablica vrednovanja kriterija prema dioniku

ocjenjivanje varijantnih rješenja

	<input checked="" type="checkbox"/>																					
unit		površina	m2	trošak	€	prihod	€	vrijeme	mjesec	preferencija1	ocjena	preferencija2	ocjena	prostorni plan	da ne	vlasništvo	da ne	sufinanciranje	da ne	kultura	m2	
Cluster/Group			◆		◆		◆		◆		◆		◆		◆		◆		◆		◆	
Preferences																						
Min/Max			max		min		max		min		max		max									
Weight			8333333333.0		1,00		323333.00		6,00		566,00		866,00		266,00		14,00		333,00		20,00	
Preference Fn.			V-shape		Usual		Usual		Usual													
Thresholds			absolute		absolute																	
- Q: Indifference			n/a		n/a																	
- P: Preference			6200		\$21,392,000		\$4,840,000		9		120		75		n/a		n/a		n/a		4910	
- S: Gaussian			n/a		n/a																	
Statistics																						
Minimum			1800		\$6,679,200		\$0		15		50		25		0		0		0		0	190
Maximum			8000		\$20,072,000		\$4,840,000		24		170		100		1		1		1		5100	
Average			463237142857		\$167,922,342		\$206,592,757		180571428571		87		67		314285714285		6		542857142857		104834285714	
Standard Dev.			167714563786		\$564,820,912		\$166,214,888		226706679141		267314688816		262732889887		164230765979		169897948556		498159879261		151654445449	
Evaluations																						
1	<input checked="" type="checkbox"/>		3000		\$10,890,000		\$0		16		100		100		yes		yes		yes		3000	
2	<input checked="" type="checkbox"/>		1800		\$6,679,200		\$0		15		50		100		yes		yes		yes		1800	
3	<input checked="" type="checkbox"/>		2000		\$7,744,000		\$0		16		50		100		yes		yes		yes		2000	
4	<input checked="" type="checkbox"/>		4000		\$15,488,000		\$0		17		90		100		yes		no		yes		4000	
5	<input checked="" type="checkbox"/>		4000		\$15,488,000		\$0		17		110		100		yes		no		yes		4000	
6	<input checked="" type="checkbox"/>		4500		\$17,278,800		\$0		17		50		100		yes		no		yes		4500	
7	<input checked="" type="checkbox"/>		4500		\$17,278,800		\$0		17		70		100		yes		no		yes		4500	
8	<input checked="" type="checkbox"/>		4000		\$15,197,600		\$0		17		60		100		yes		yes		yes		4000	
9	<input checked="" type="checkbox"/>		4000		\$15,197,600		\$0		17		80		100		yes		yes		yes		4000	
10	<input checked="" type="checkbox"/>		5100		\$21,054,000		\$0		18		60		80		yes		no		yes		5100	
11	<input checked="" type="checkbox"/>		5100		\$21,054,000		\$0		18		80		80		yes		no		yes		5100	
a	<input checked="" type="checkbox"/>		3000		\$10,890,000		\$1,815,000		16		55		30		no		yes		no		750	
b	<input checked="" type="checkbox"/>		1800		\$6,679,200		\$1,089,000		15		70		35		no		yes		no		240	
c	<input checked="" type="checkbox"/>		2000		\$7,744,000		\$1,210,000		16		60		25		no		yes		no		190	
d	<input checked="" type="checkbox"/>		1000		\$15,188,000		\$2,120,000		17		80		50		no		no		no		775	
e	<input checked="" type="checkbox"/>		4000		\$15,488,000		\$2,420,000		17		100		50		no		no		no		775	
f	<input checked="" type="checkbox"/>		4500		\$17,278,800		\$2,722,500		17		90		50		no		no		no		800	
g	<input checked="" type="checkbox"/>		4500		\$17,278,800		\$2,722,500		17		110		50		no		no		no		800	
h	<input checked="" type="checkbox"/>		4000		\$15,197,600		\$2,420,000		17		100		40		no		yes		no		475	
i	<input checked="" type="checkbox"/>		4000		\$15,197,600		\$2,420,000		17		120		40		no		yes		no		475	
j	<input checked="" type="checkbox"/>		5100		\$21,054,000		\$3,085,500		18		90		40		no		yes		no		745	
k	<input checked="" type="checkbox"/>		5100		\$21,054,000		\$3,085,500		18		100		40		no		yes		no		745	
A	<input checked="" type="checkbox"/>		4000		\$13,310,000		\$2,420,000		17		100		100		no		yes		no		975	
B	<input checked="" type="checkbox"/>		2600		\$8,615,200		\$1,573,000		17		70		60		no		yes		no		495	
C	<input checked="" type="checkbox"/>		3333		\$10,655,000		\$2,016,465		17		60		40		no		yes		no		512	
D	<input checked="" type="checkbox"/>		6600		\$19,021,200		\$3,993,000		20		80		50		no		no		yes		1410	
E	<input checked="" type="checkbox"/>		6600		\$19,021,200		\$3,993,000		20		100		50		no		no		yes		1410	
F	<input checked="" type="checkbox"/>		7000		\$22,360,800		\$4,235,000		22		70		50		no		no		yes		2140	
G	<input checked="" type="checkbox"/>		7000		\$22,360,800		\$4,235,000		22		90		50		no		no		yes		2140	
H	<input checked="" type="checkbox"/>		6000		\$20,328,000		\$3,630,000		19		70		50		no		yes		no		960	
I	<input checked="" type="checkbox"/>		6000		\$20,328,000		\$3,630,000		19		90		50		no		yes		no		960	
J	<input checked="" type="checkbox"/>		9000		\$28,072,000		\$4,840,000		24		100		70		no		yes		yes		1300	
K	<input checked="" type="checkbox"/>		9000		\$28,072,000		\$4,840,000		24		120		65		no		yes		yes		1300	
Xy	<input checked="" type="checkbox"/>		7000		\$25,652,000		\$4,588,000		22		150		100		no		yes		yes		1200	
Yx	<input checked="" type="checkbox"/>		6000		\$23,232,000		\$2,904,000		19		170		100		no		yes		yes		1200	

Ocijenjeni kriteriji prema svim varijantnim rješenjima

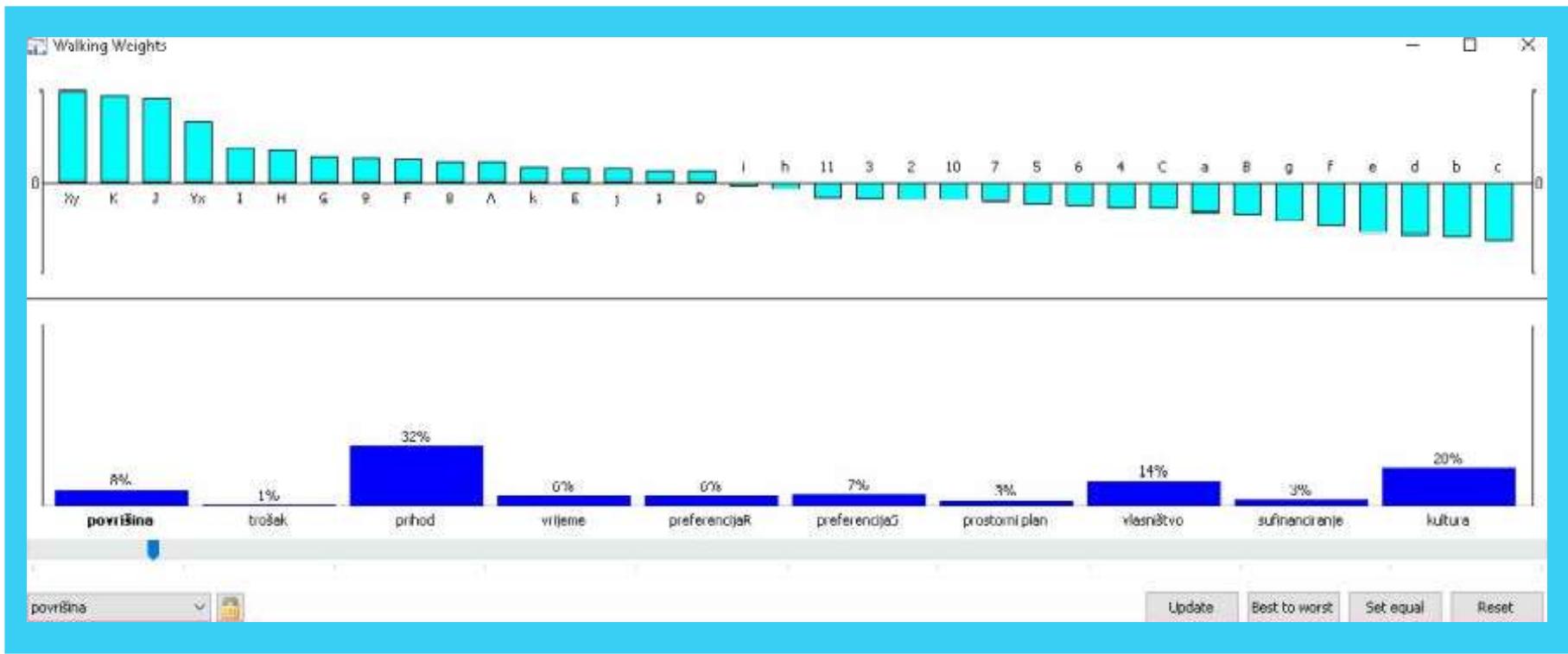


usporedba
varijantnih
rješenja

PROMETHEE Flow Table

	action	Phi	Phi+	Phi-
1	Xy	0,2600	0,3398	0,0798
2	K	0,2475	0,3511	0,1036
3	J	0,2424	0,3454	0,1030
4	Yx	0,1751	0,2620	0,0865
5	I	0,0978	0,2168	0,1189
6	H	0,0881	0,2126	0,1245
7	G	0,0713	0,2460	0,1747
8	9	0,0667	0,2349	0,1682
9	F	0,0616	0,2419	0,1803
10	B	0,0570	0,2320	0,1750
11	A	0,0552	0,1795	0,1243
12	k	0,0411	0,1797	0,1386
13	E	0,0387	0,2125	0,1738

tablični prikaz rangiranje varijantnih rješenja

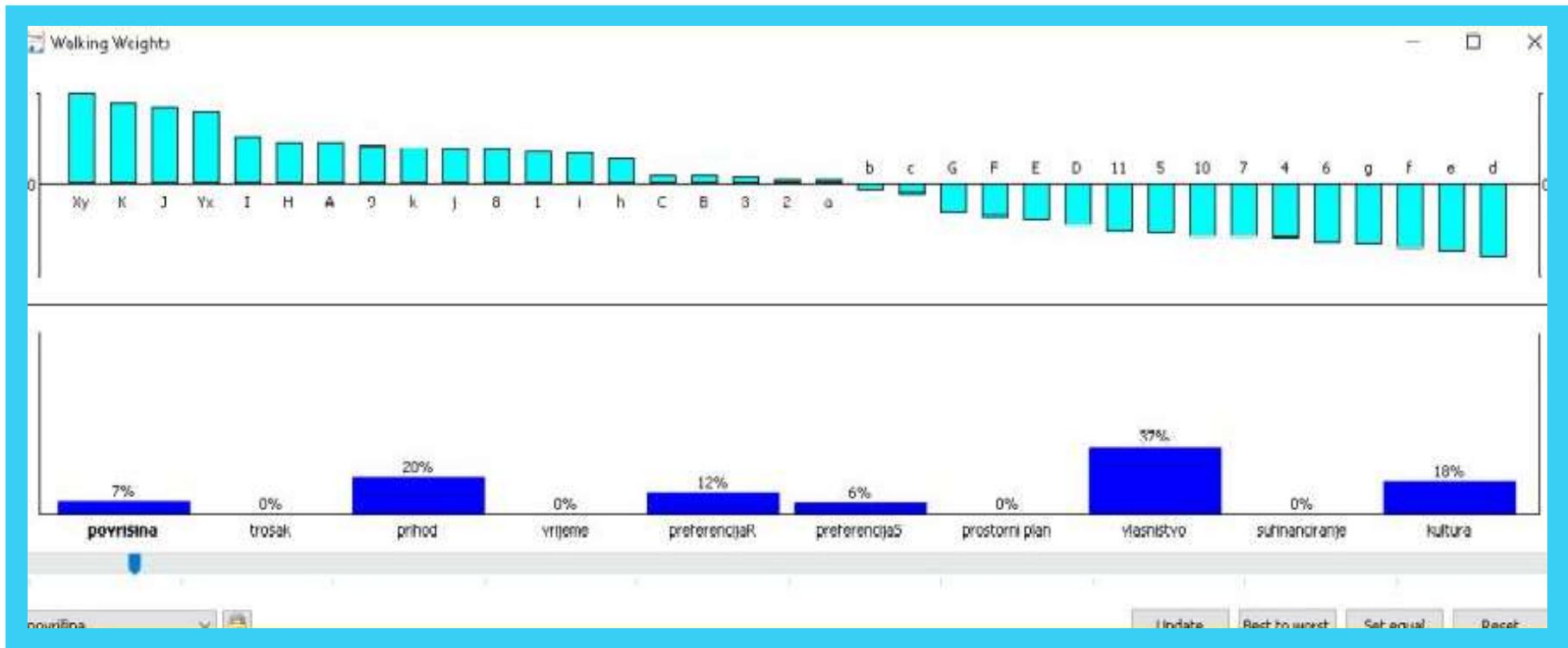


grafički prikaz rangiranja varijantnih rješenja i stupičasti odnos težina kriterija i preferencija varijantnih rješenja

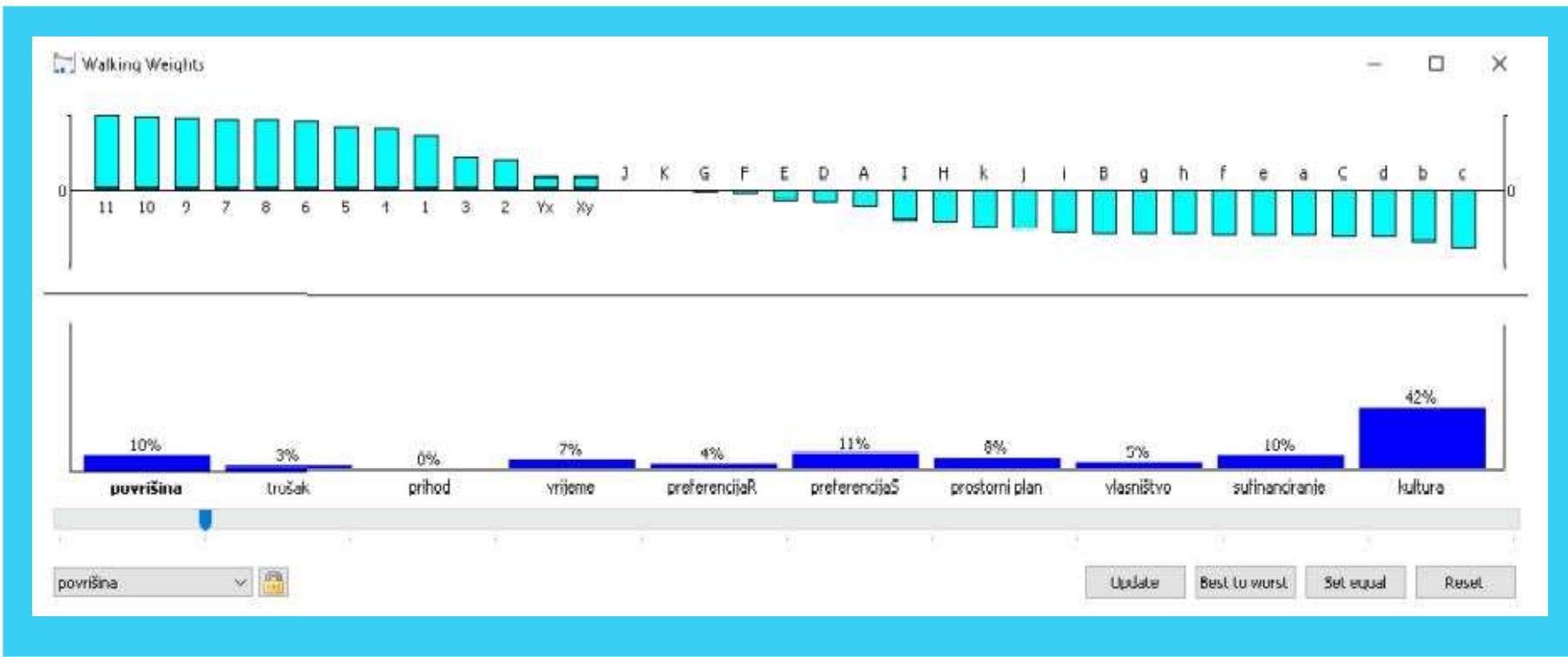
	kriterij	površina	trošak	prihod	vrijeme	preferencija	preferencijaS	prostorni plan	vlasništvo	suhodranci	kultura		
Unit		m2	€	€	mjesec	Uvjerna	Uvjerna	dane	dane	dane	m2		
Cluster/Group		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦		
Preferences													
Min/Max	max		min	max	min	max	max	max	max	max	max		
Weight	0,33		1,00	30,33	6,00	5,00	6,00	2,00	14,00	0,33	20,00		
Preference Fn.	V-shape		V-shape	V-shape	V-shape	V-shape	V-shape	Usual	Usual	Usual	V-shape		
Thresholds	absolut		absolut	absolut	absolute	absolut	absolute	absolute	absolute	absolute	absolute		
- Q: Indifference	n/a		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
- P: Preference	6200	€ 21.392.800		€ 4.840.000	9	120	75	n/a	n/a	n/a	4910		
- S: Gaussian	n/a		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Statistics													
Minimum	1800	€ 6.679.200		€ 0	15	50	25	0	0	0	190		
Maximum	8000	€ 26.072.000		€ 4.840.000	24	170	100	1	1	1	5100		
Average	4632	€ 16.792.234		€ 2.054.499	18	88	67	0	1	1	1851		
Standard Dev.	1677	€ 5.648.209		€ 1.646.066	2	28	26	0	0	0	1515		
Evaluations													
	<input checked="" type="checkbox"/>	I		700C	€ 22.36€.800	€ 4.235.000	22	70	50	no	no	yes	2140
	<input checked="" type="checkbox"/>	G		700C	€ 22.36€.800	€ 4.235.000	22	90	50	no	no	yes	2140
	<input checked="" type="checkbox"/>	H		500C	€ 2€.32€.000	€ 3.630.000	19	70	50	no	yes	no	960
	<input checked="" type="checkbox"/>	I		500C	€ 2€.072.000	€ 4.840.000	24	100	70	no	yes	yes	1300
	<input checked="" type="checkbox"/>	K		500C	€ 2€.072.000	€ 4.840.000	24	120	55	no	yes	yes	1300
	<input checked="" type="checkbox"/>	YX		500C	€ 2€.202.000	€ 2.904.000	19	170	100	no	yes	yes	1200
	<input checked="" type="checkbox"/>	ZY		700C	€ 2€.652.000	€ 4.188.000	22	170	100	no	yes	yes	1300

grafički prikaz rangiranja varijantnih rješenja i odabir 4 najbolja

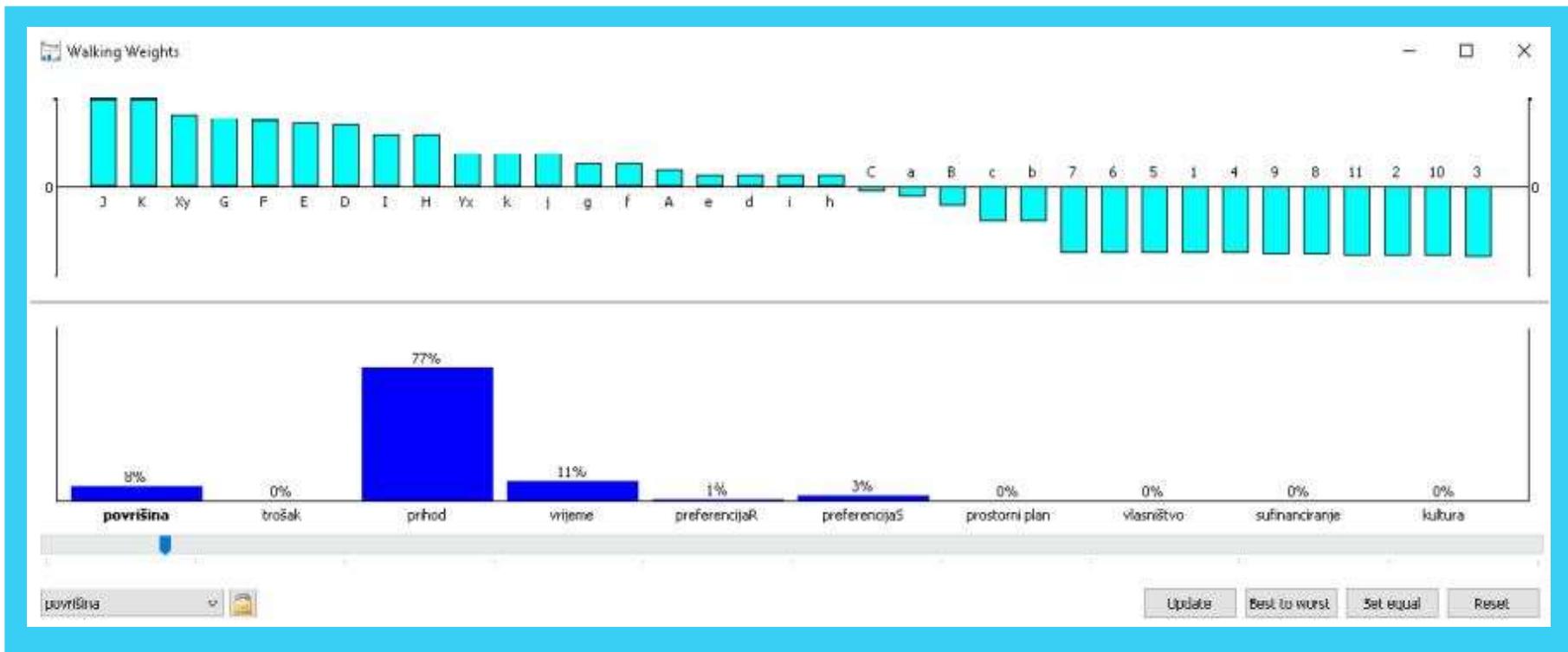
raličiti scenariji



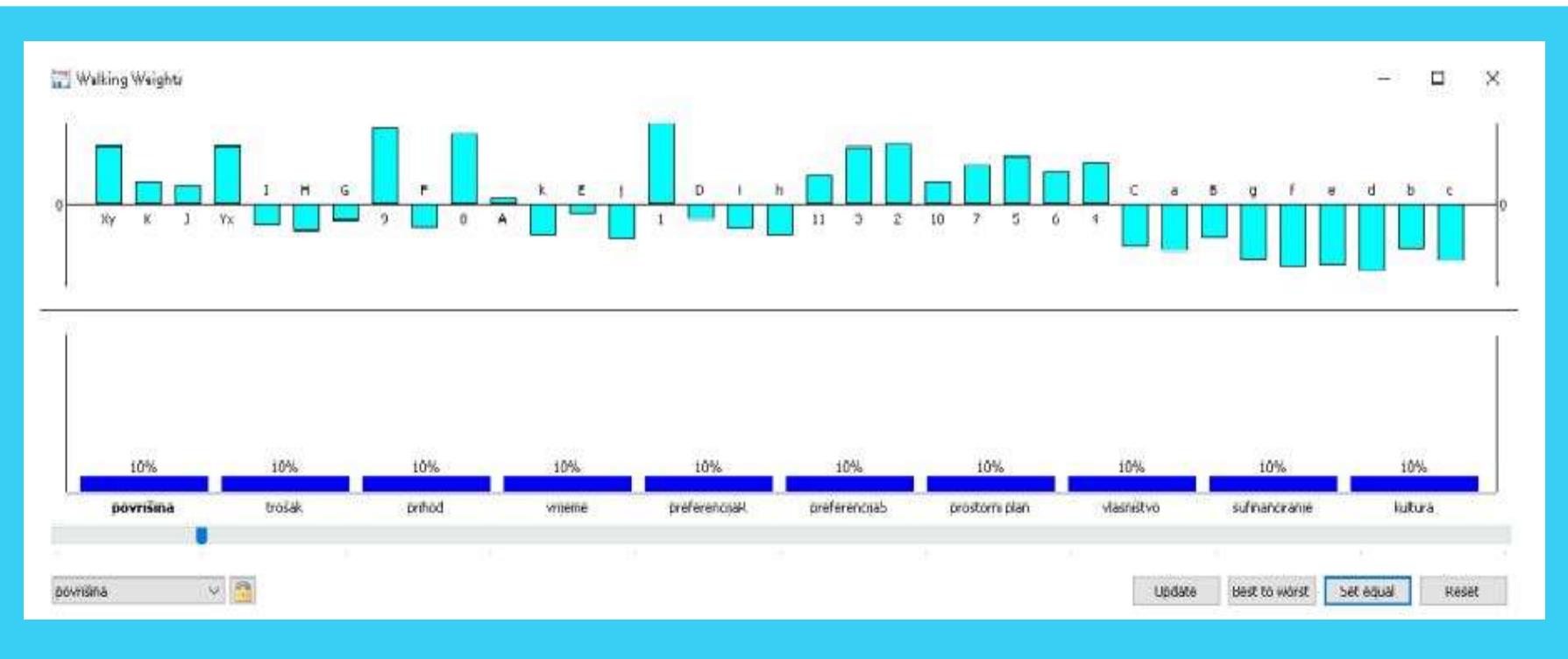
prikaz „walking weights” – stupičasti odnos težina kriterija i preferencija varijantnih rješenja u pogledu Crkve



prikaz „walking weights” – stupičasti odnos težina kriterija i preferencija varijantnih rješenja u pogledu grada



prikaz „walking weights” – stupičasti odnos težina kriterija i preferencija varijantnih rješenja u pogledu investitora



prikaz „walking weights“ – stupičasti odnos težina kriterija i preferencija varijantnih rješenja, svi kriteriji su jednaki!

zaključak

varijanta XY

grad -

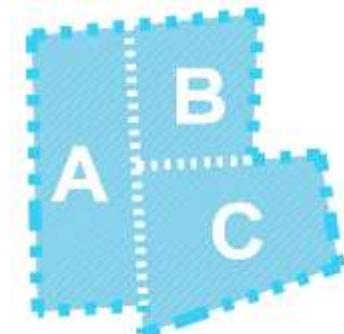
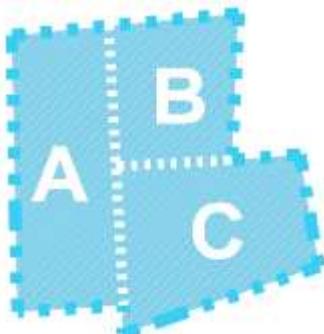
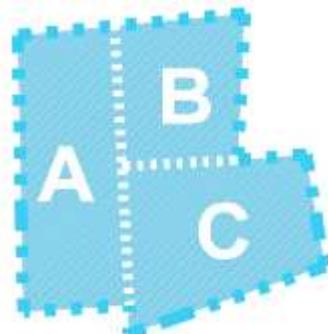
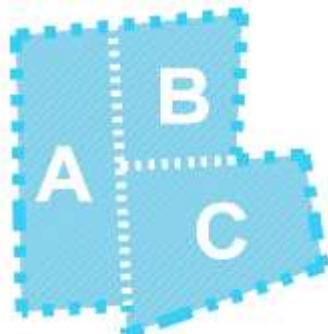
1500 m²

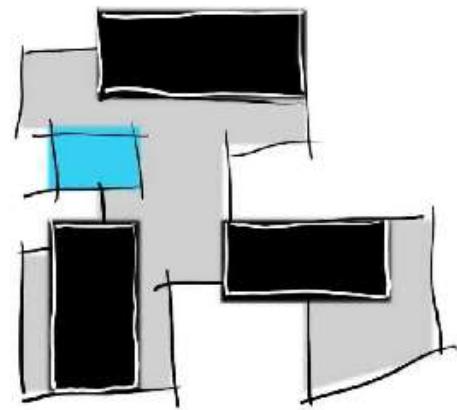
Crkva -

500 m²

investitor -

5000m²





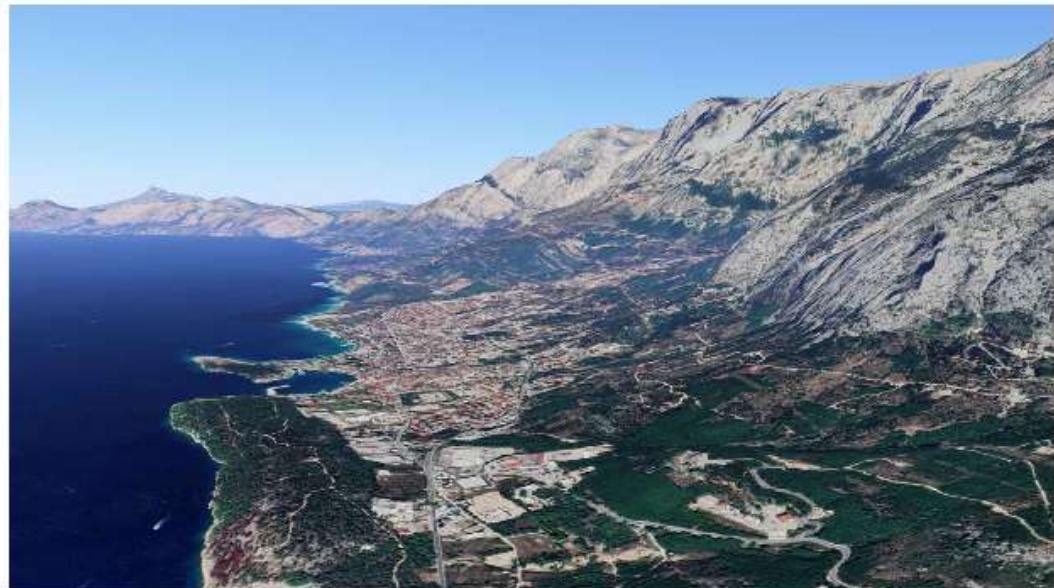
IDEJNI PROJEKT CENTAR URBANE KULTURE SINOKOŠA

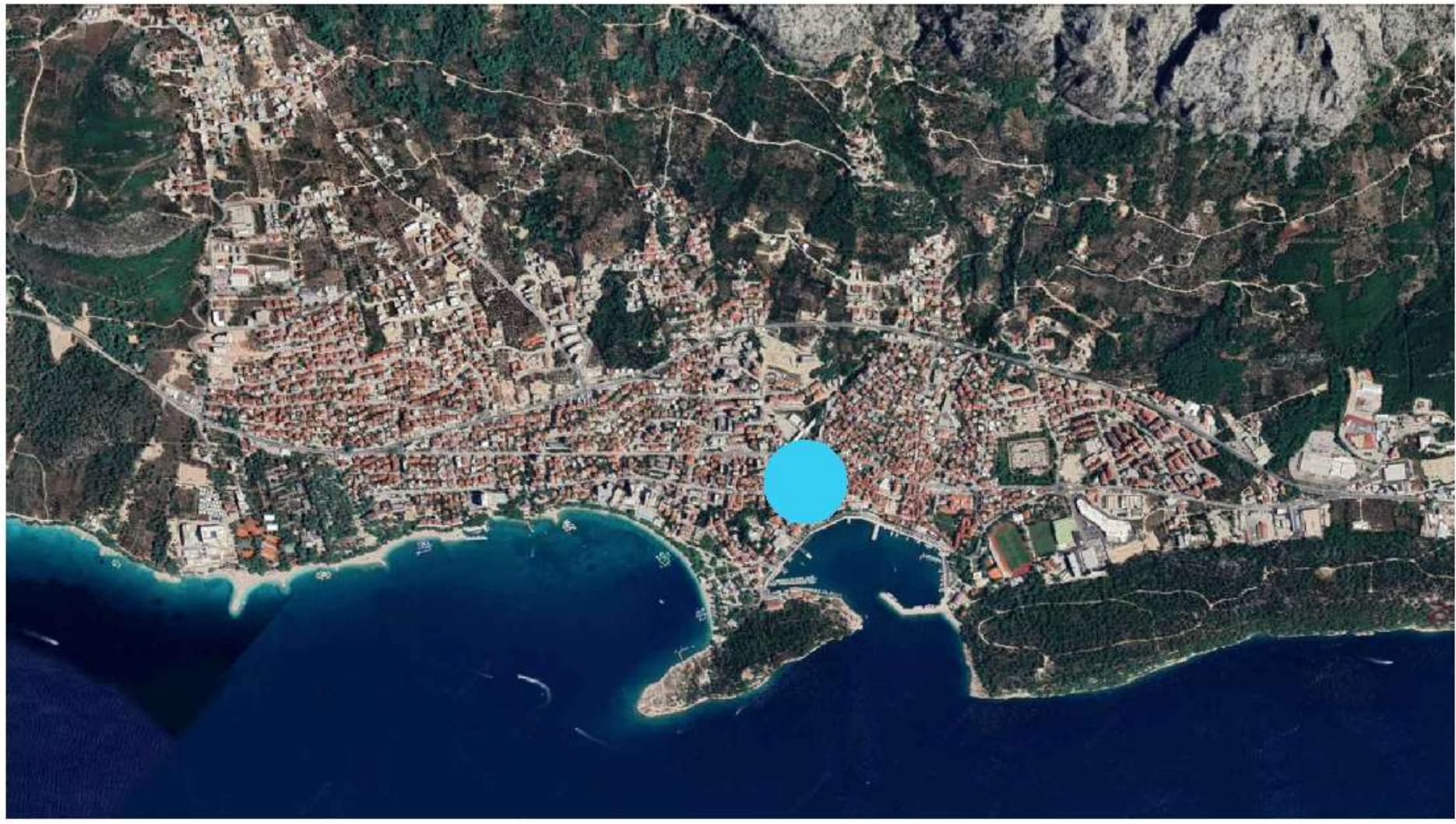


Položaj Makarske na karti Hrvatske

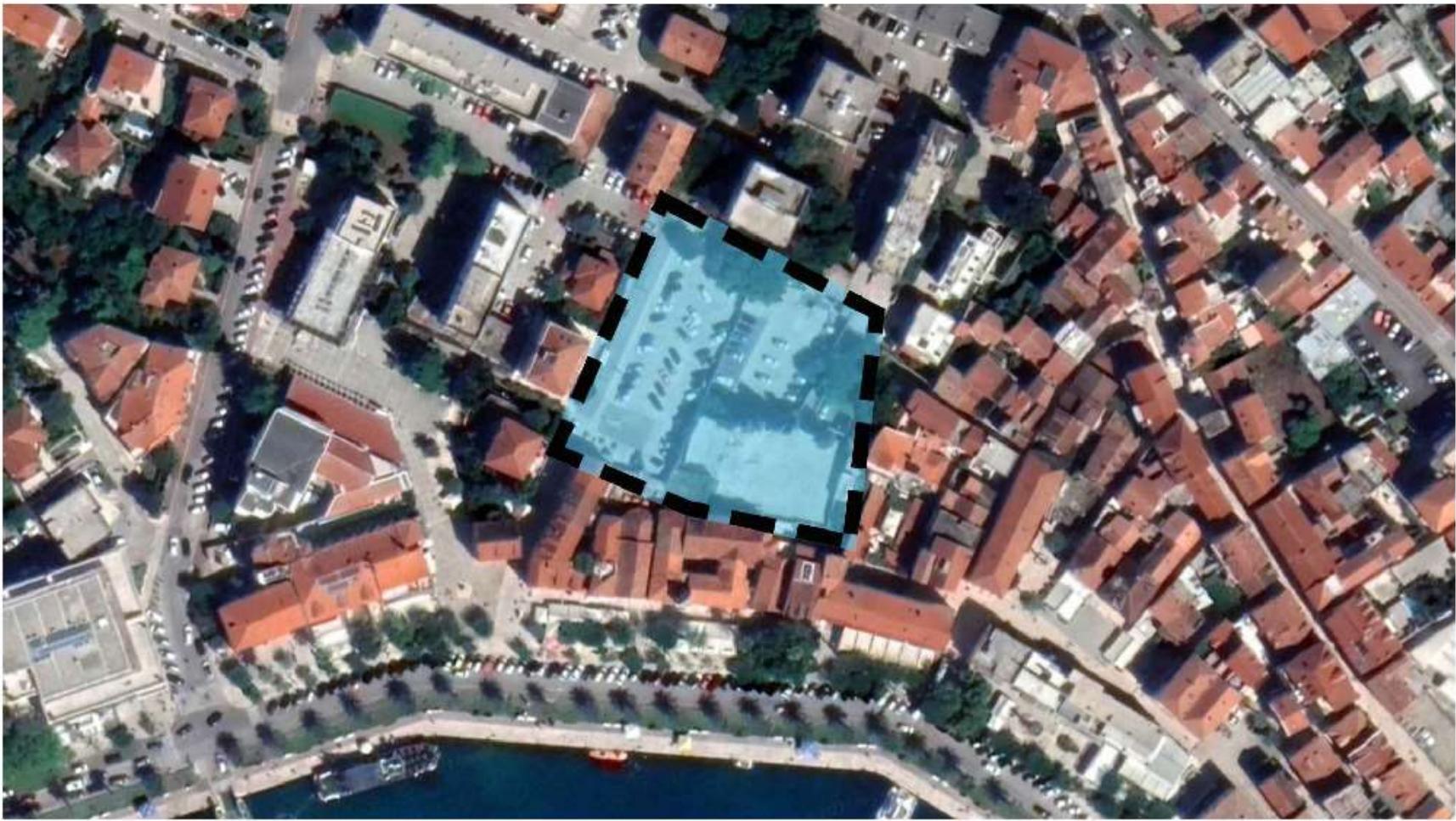


perspektivni prikaz Makarske





položaj odabrane parcele u Makarskoj



položaj parcele na orto foto snimci Makarske



položaj parcele na orto foto snimci Makarske



STAMBENJAK/HOTEL



ZVONIK/SPOMENIK



Fotografija iz traka užeg obuhvata

urbanistička analiza užeg obuhvata



OBUHVAT

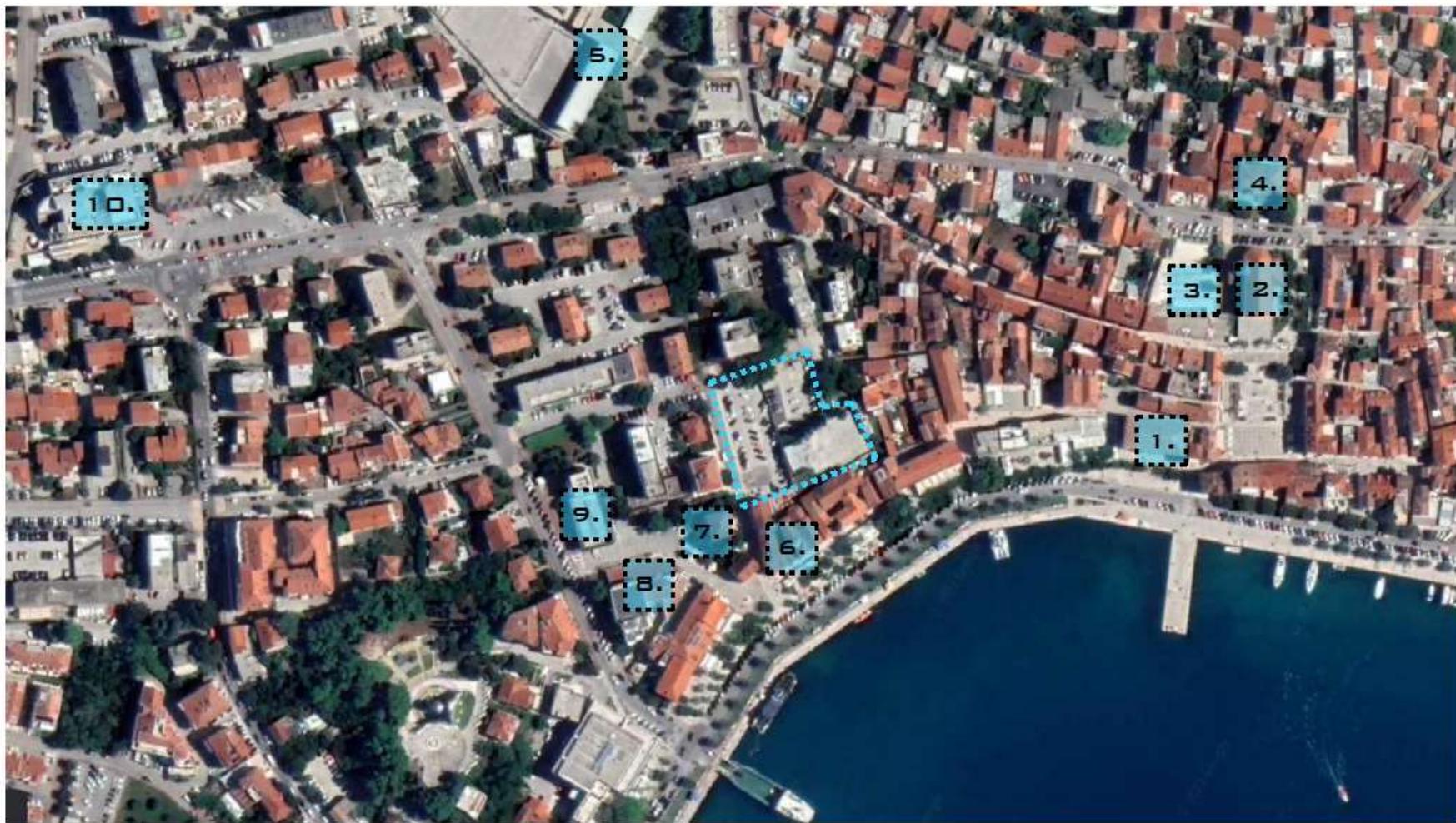


ŠTAPIČASTI URBANIZAM



STARA JEZGRA GRADA





Analiza objekata društvene namjene

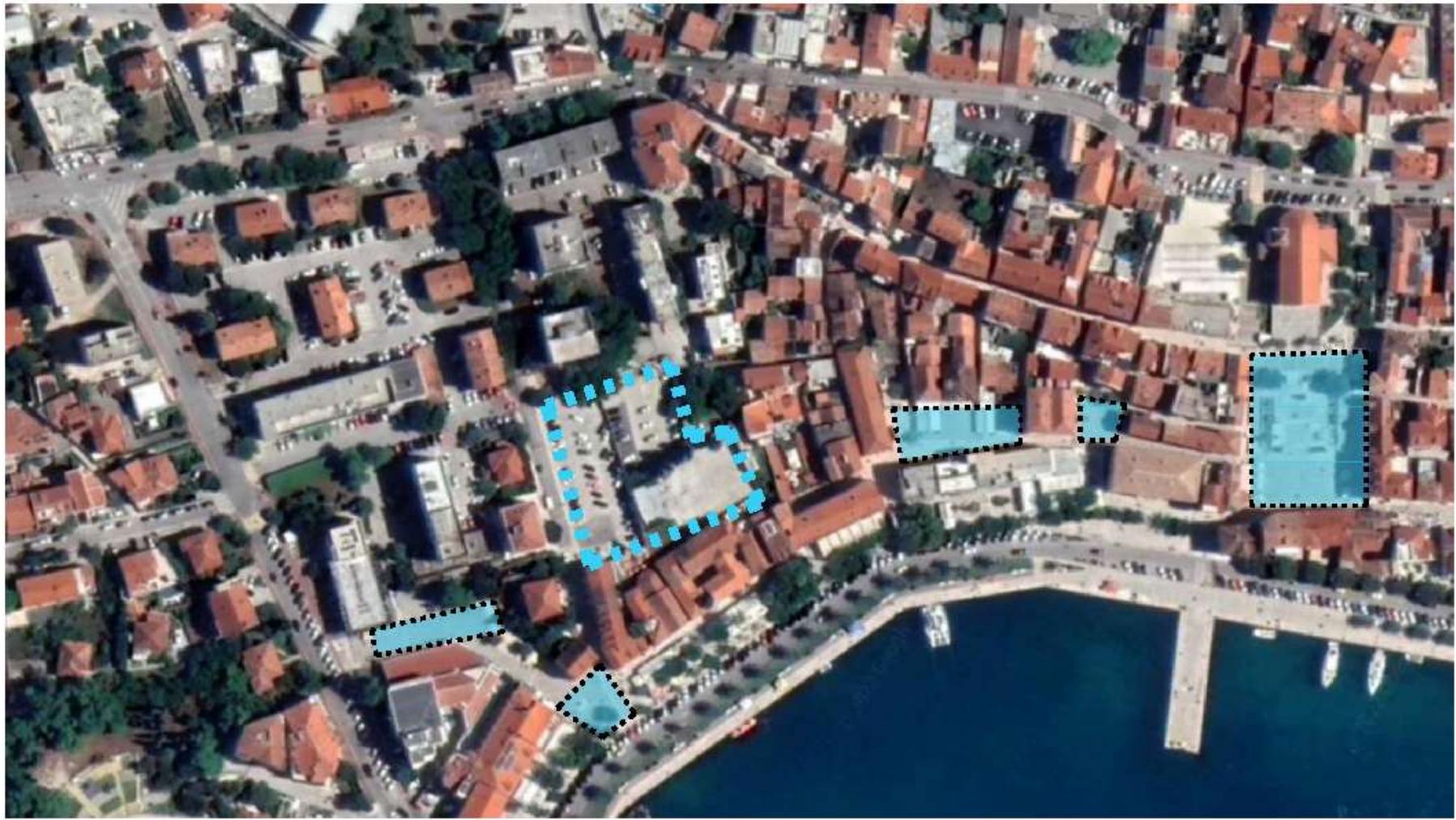


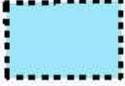
OBJEKTI DRUŠTVENIH NAMJENA



OBUHVAT

1. Općina
2. Crkva Sv. Marka
3. Tržnica na otvorenom
4. Glazbena škola
5. Osnovna škola
6. Crkva Sv. Filipa Nerija
7. Škola stranih jezika
8. Pošta
9. FINA
10. Autobusni kolodvor



 POSTOJEĆI TRGOVI

analiza veličina makarskih trgova

 OBUHVAT



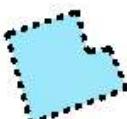
analiza kolnog prometa

DVOSMJEerna

JEDNOSMJEerna

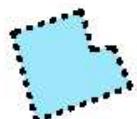
STOPIRANA ULICA

OBUHVAT





analiza pješačkog prometa

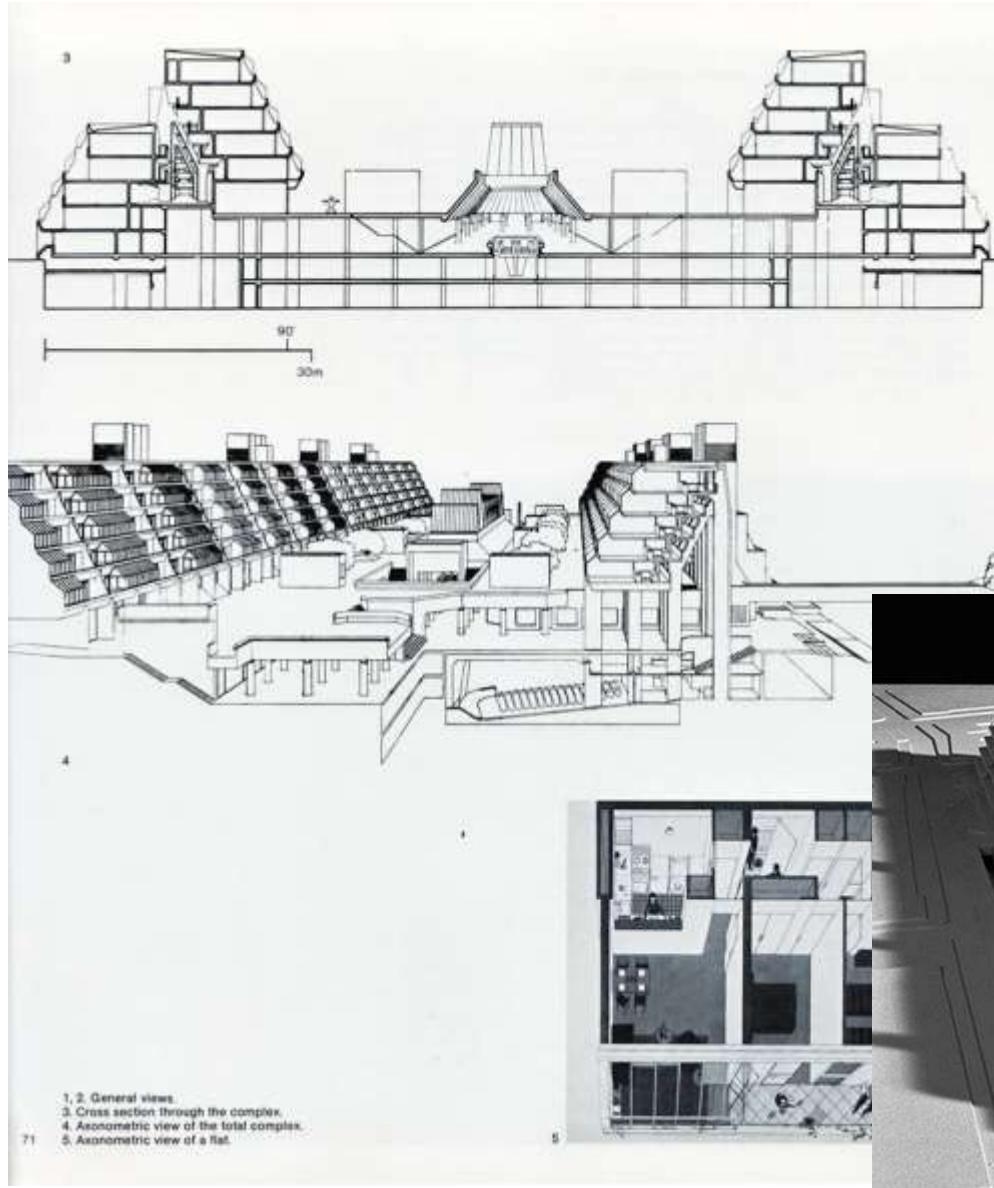


OBUHVAT

PJEŠAČKA OS

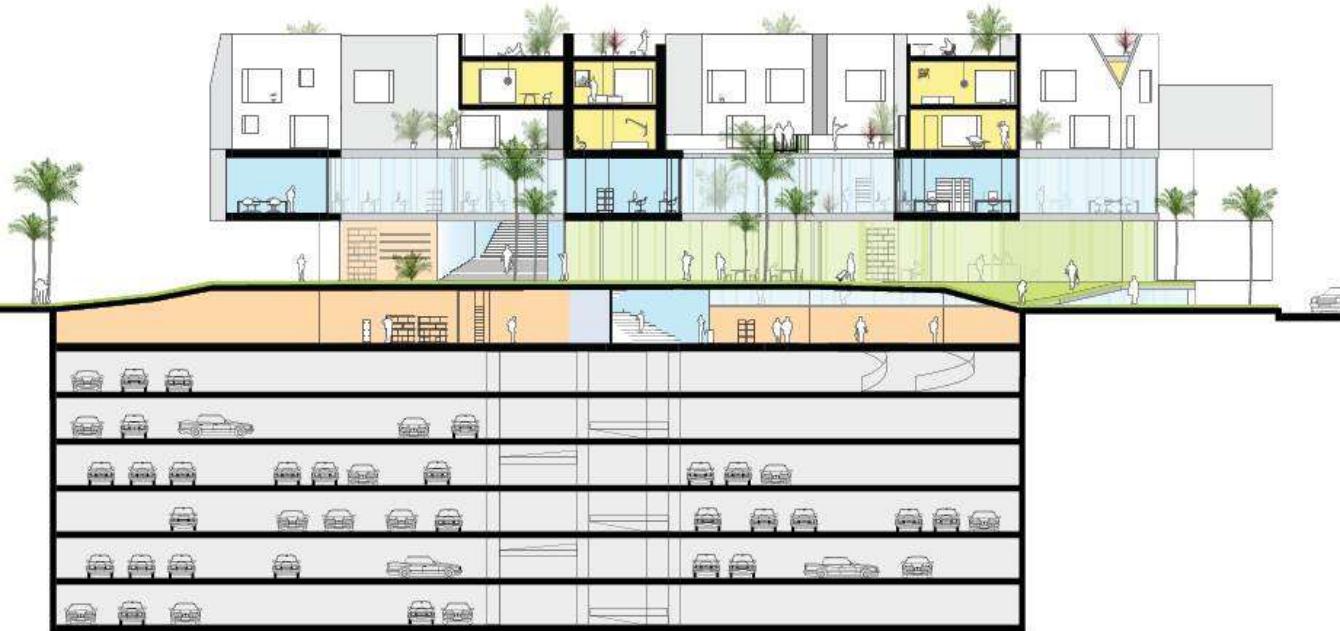
PRISTUP S JUGA KROZ BISKUPSKI DVOR

NAJPROMETNIJA PJEŠAČKA OS

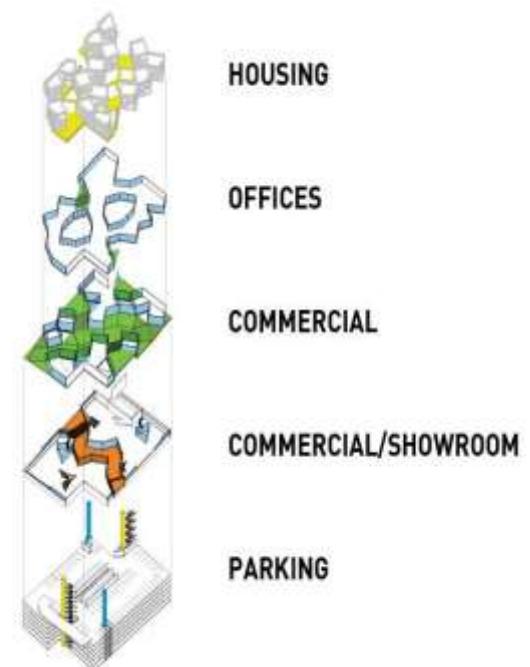


PATRICK HODGKINSON, BRUNSWICK CENTRE, 1972.



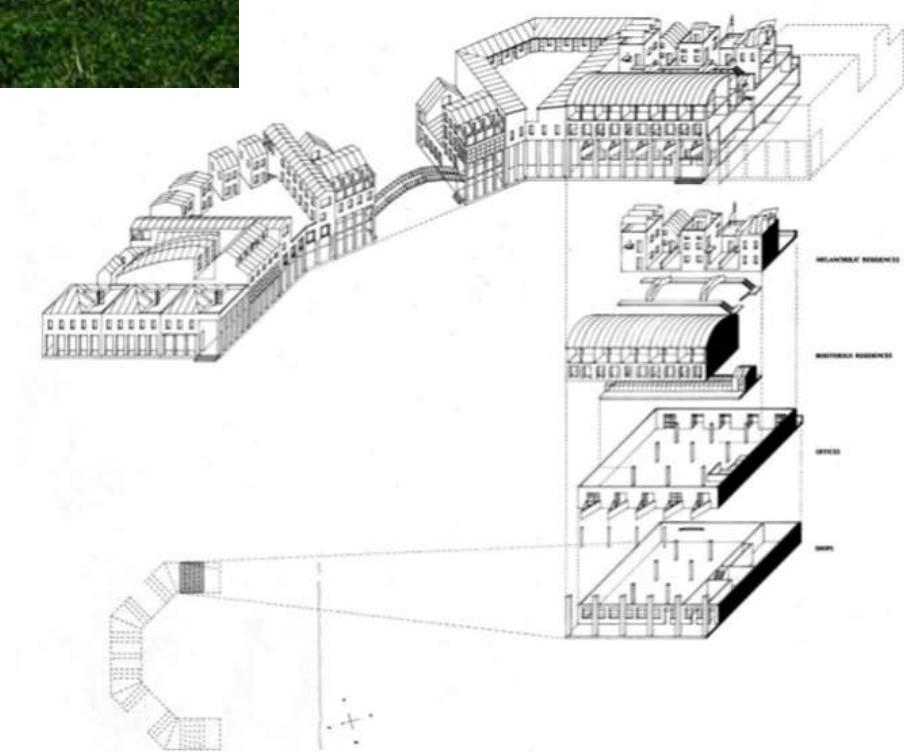


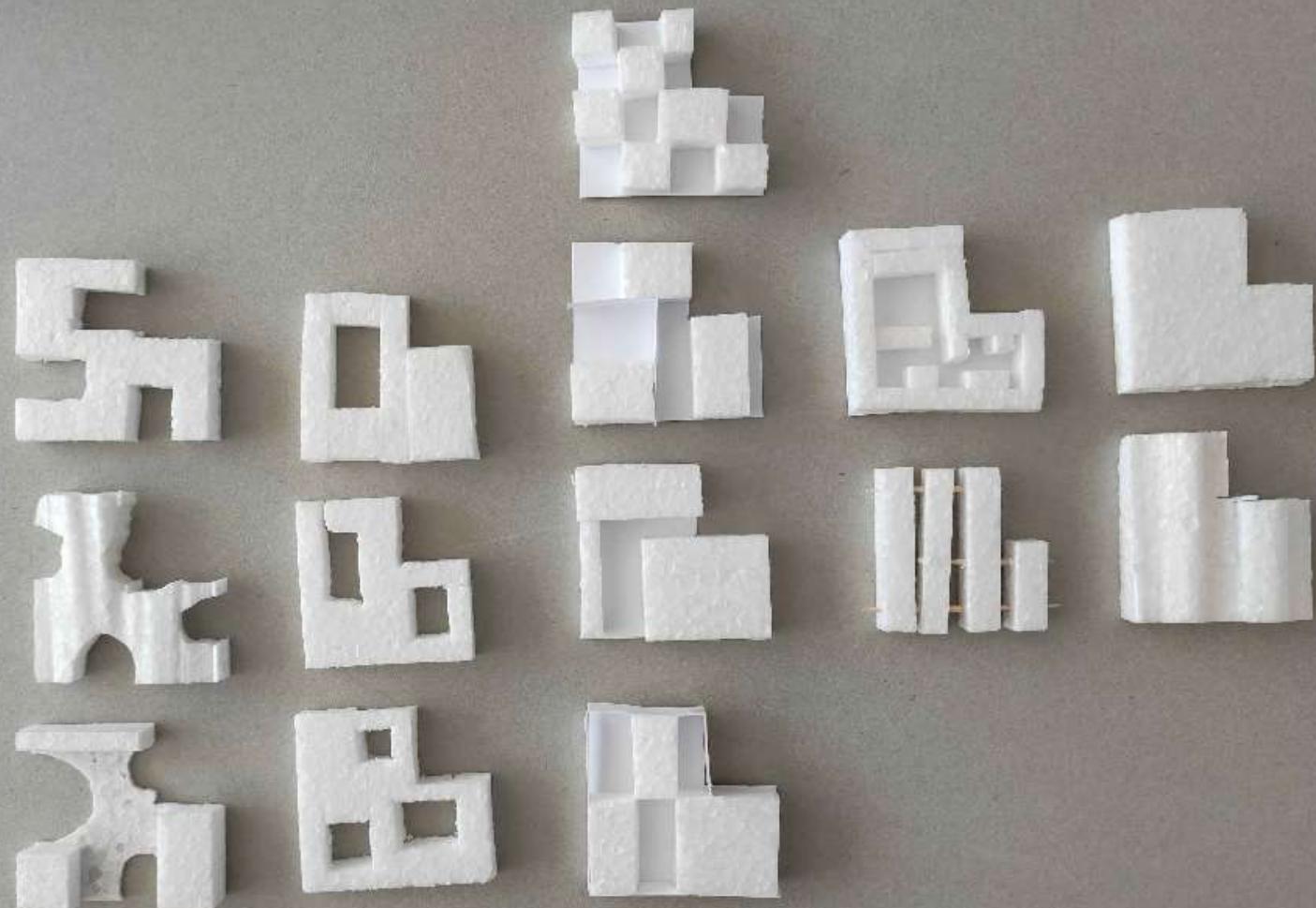
JULIEN DE SMEDT, ARCHITECTURAL MOUSSAKA, 2007.





STEVEN HOLL, SEASIDE HYBRID, 1988.





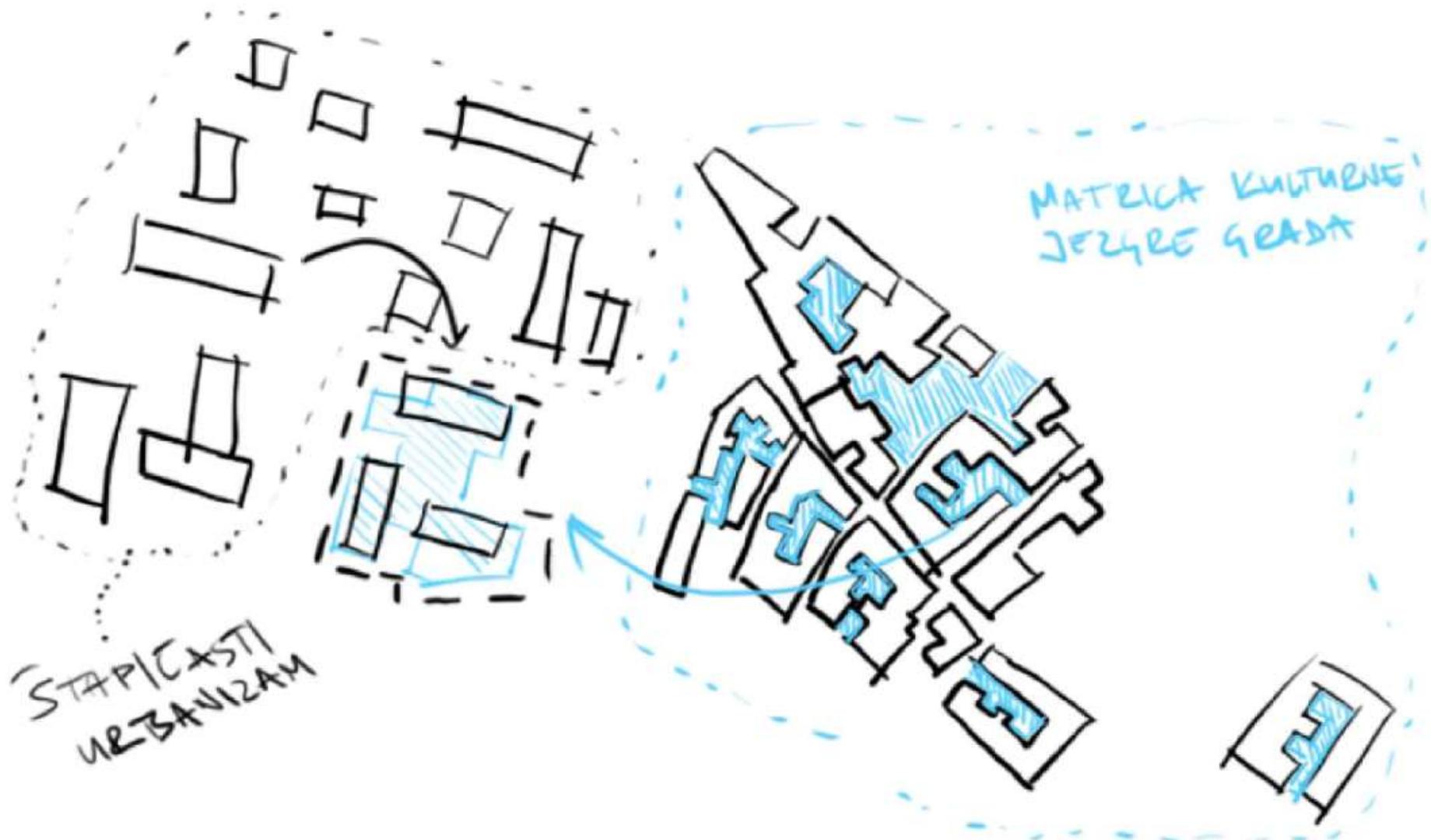
urbanističko ispitivanje formi



koncept na razini urbanizma



koncept na razini urbanizma



koncept na razini urbanizma



koncept na razini urbanizma, situacija



koncept na razini urbanizma, situacija sa pješačkim putevima



koncept na razini urbanizma, potencijalni novi pješački putevi



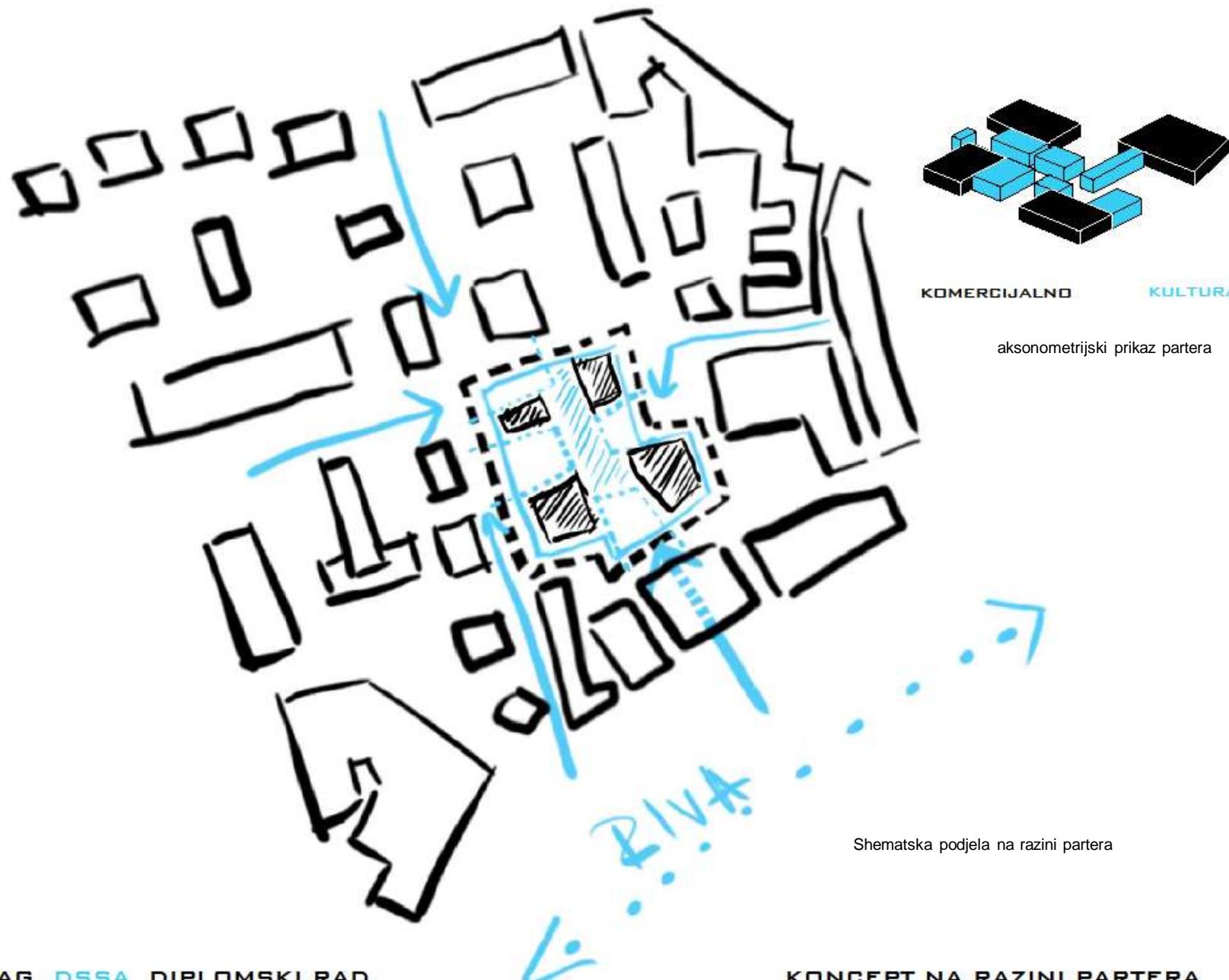
koncept na razini urbanizma, maksimalno iskorištavanje tlocrte površine parcele



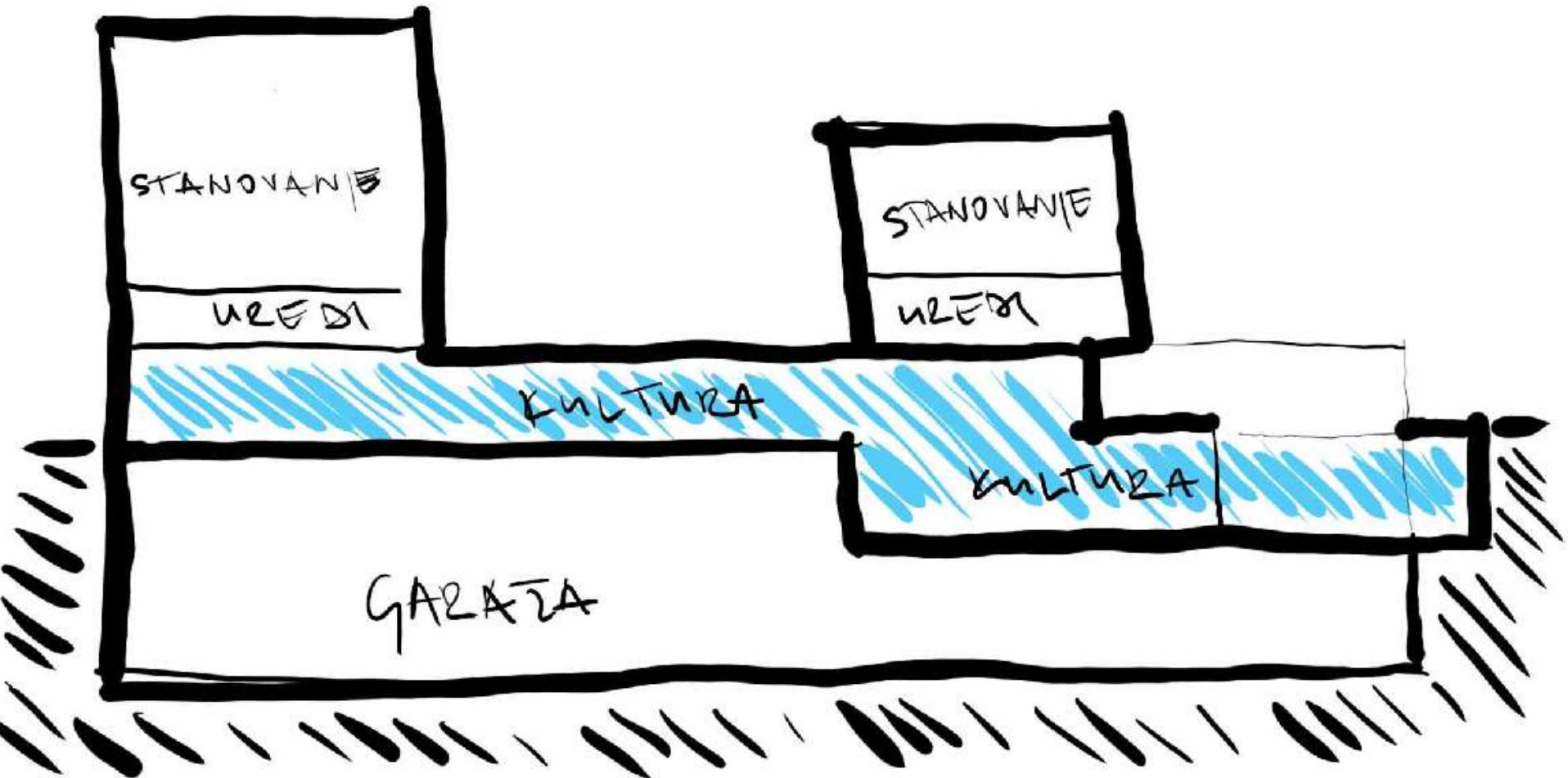
koncept na razini urbanizma, oduzimanje od maksimalnog u vidu zasjeka
otvaranje prema ulici pješačkim putevima

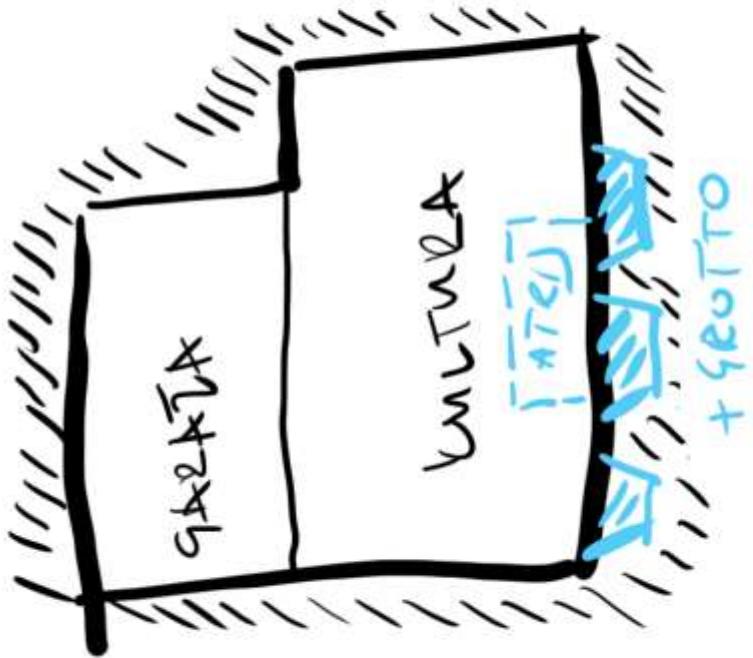


koncept na razini urbanizma, dodavanje lamela po uzoru na štapičasti urbanizam

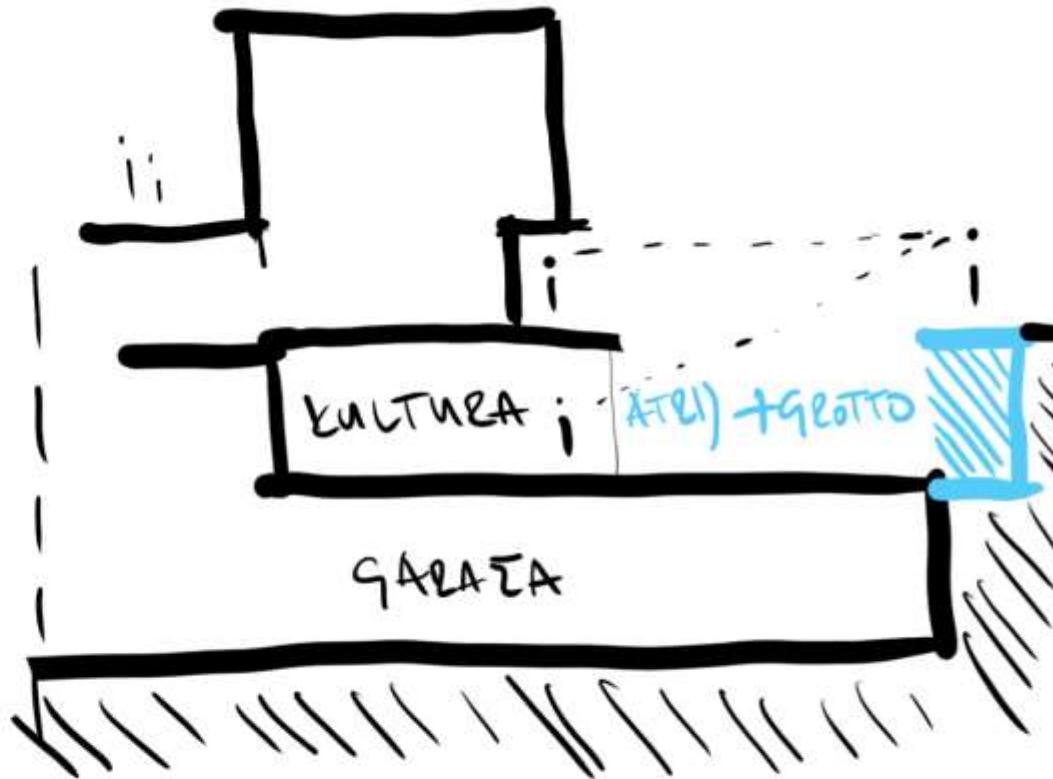


shematska podjela programa po presjeku

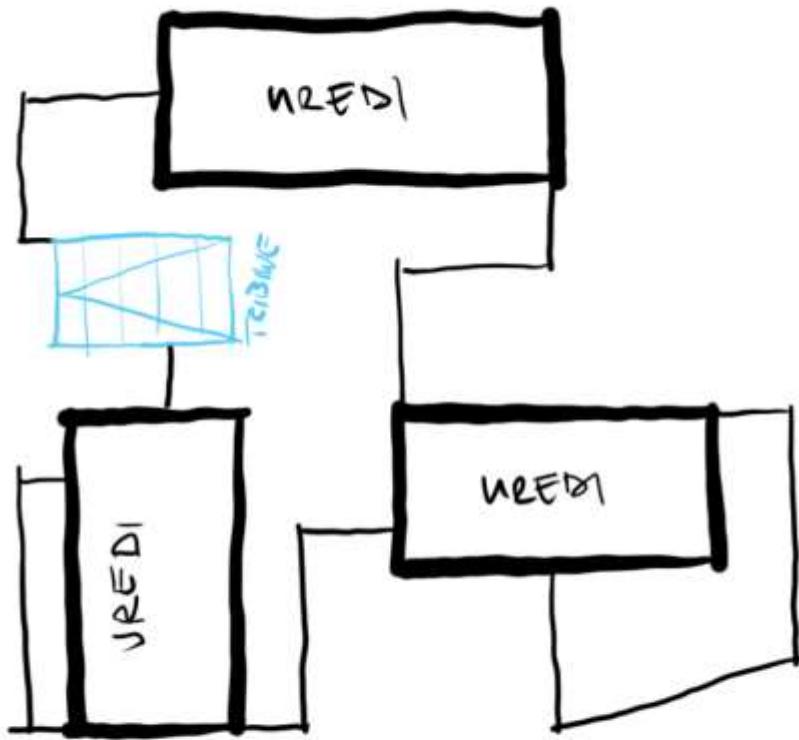




tzlcr, adicija grotto



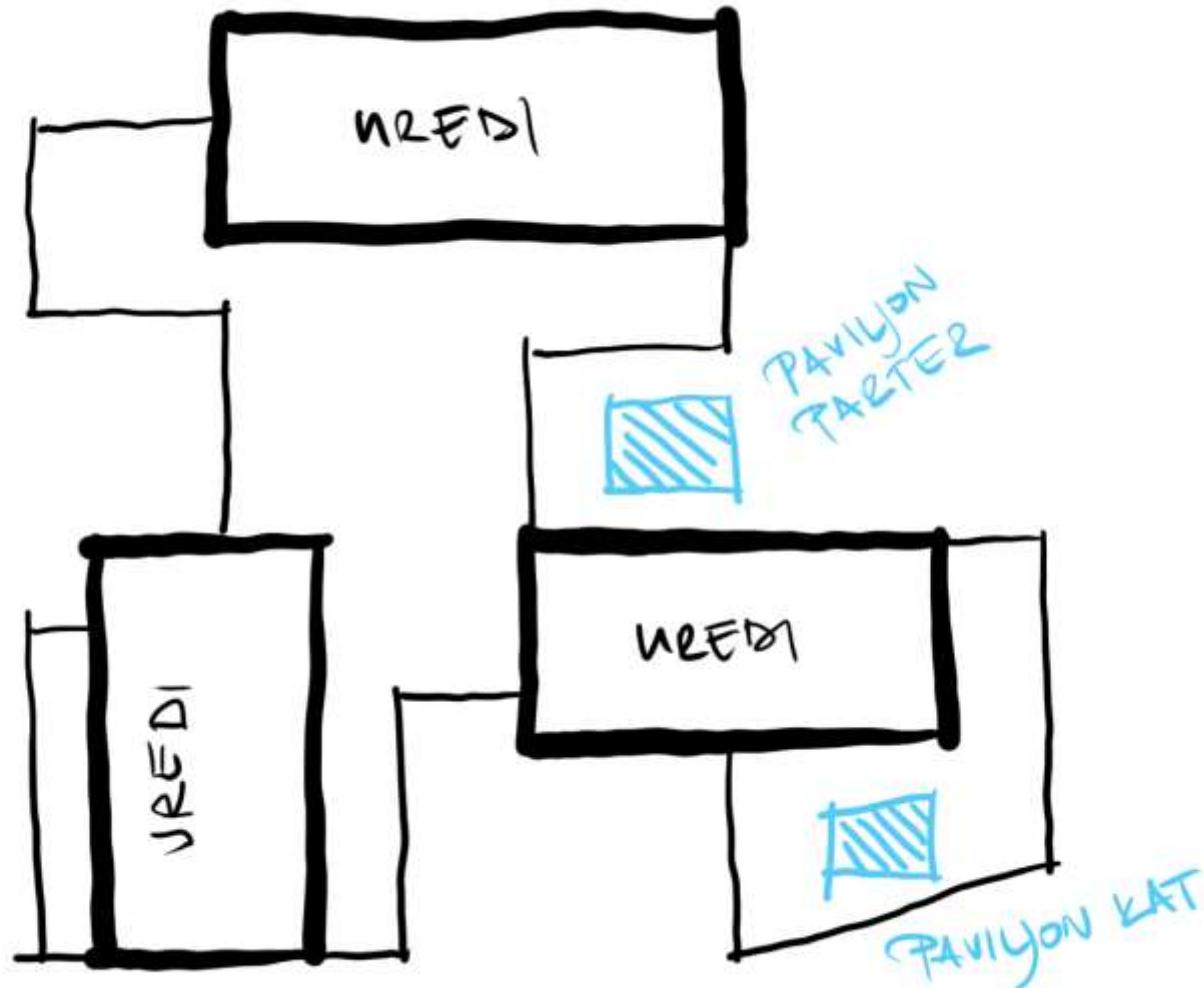
presjek, adicija grotto, vizualne konekcije



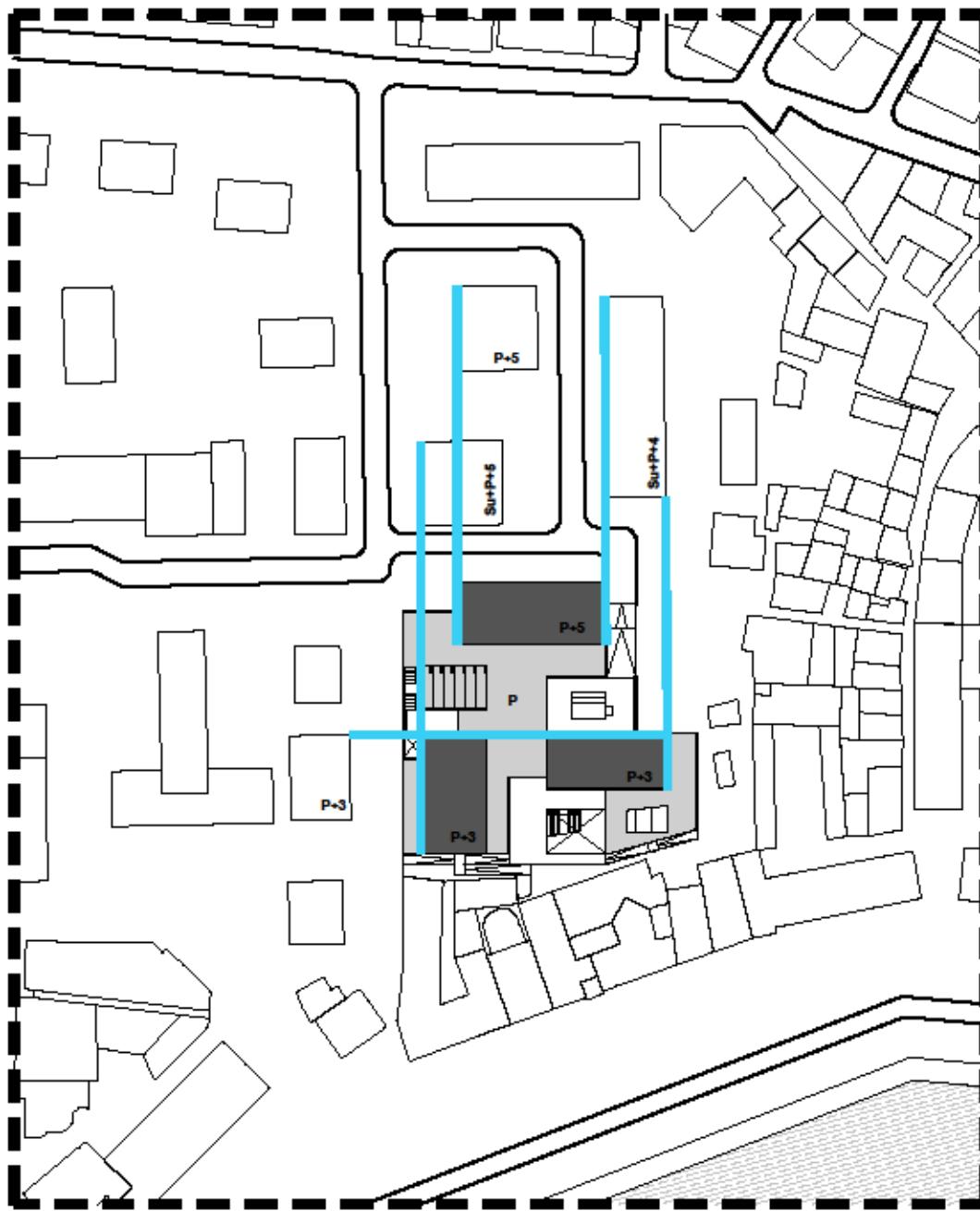
tlocrt, adicija tribina

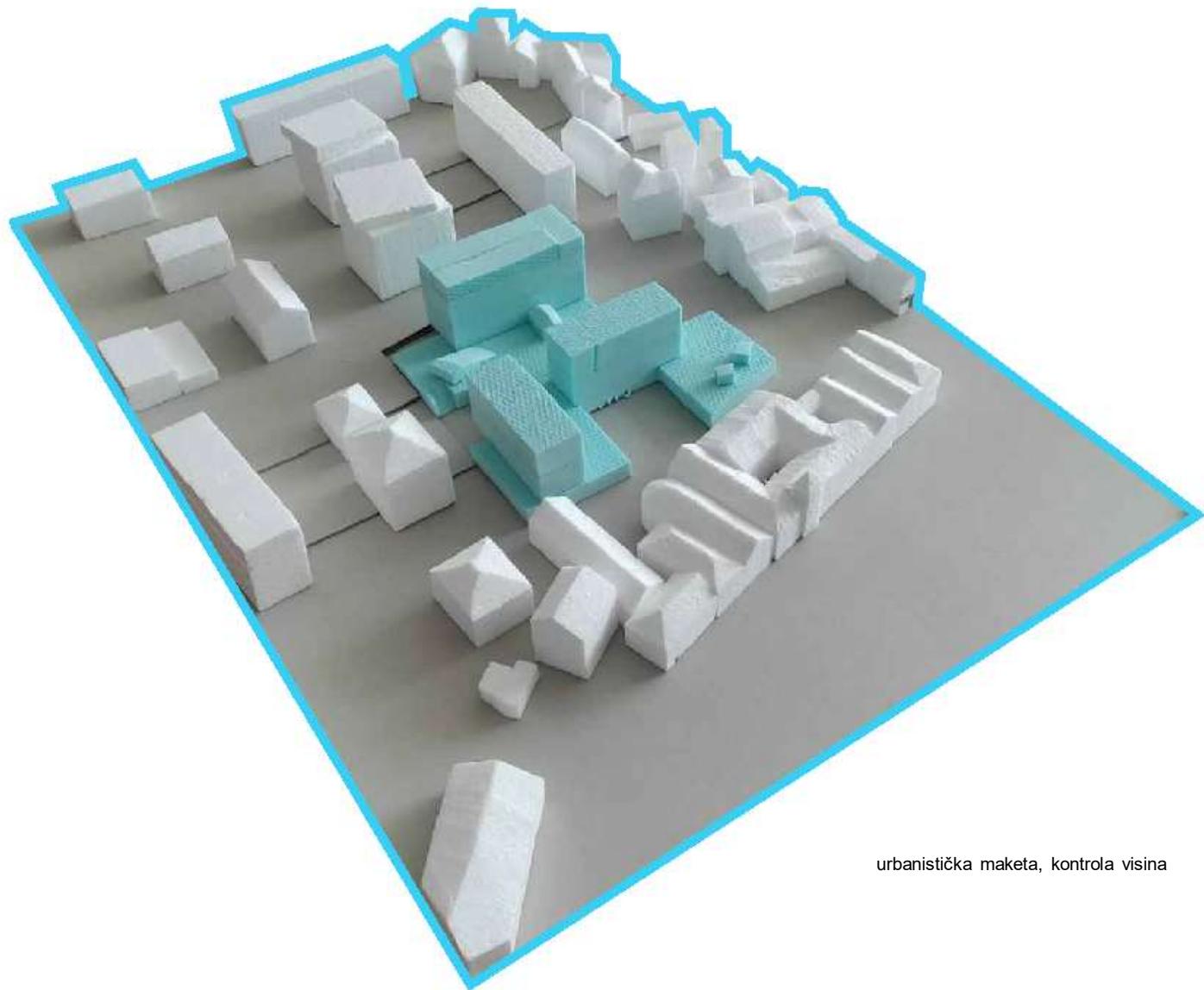


presjek, adicija adicija tribina, vizualne konekcije

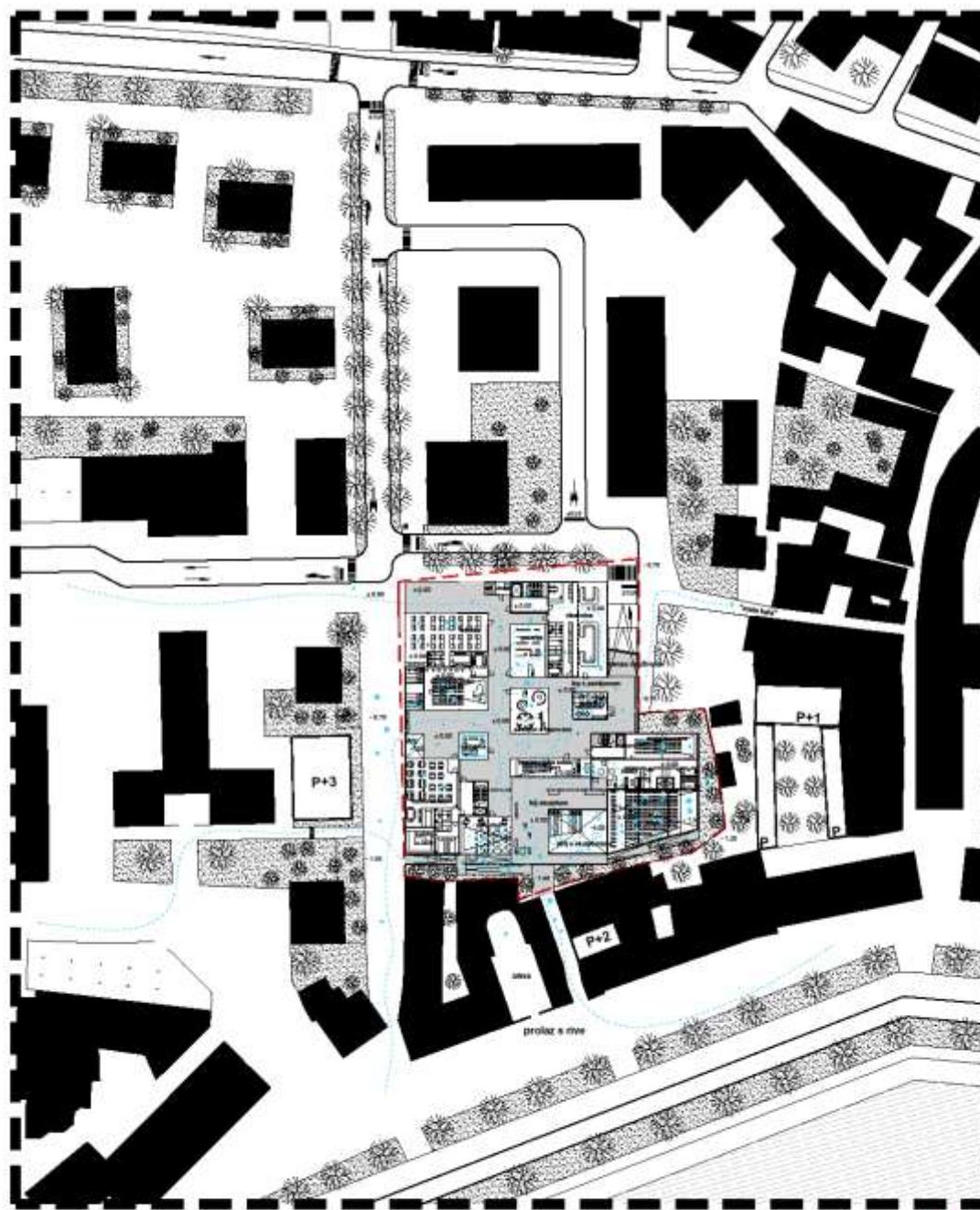


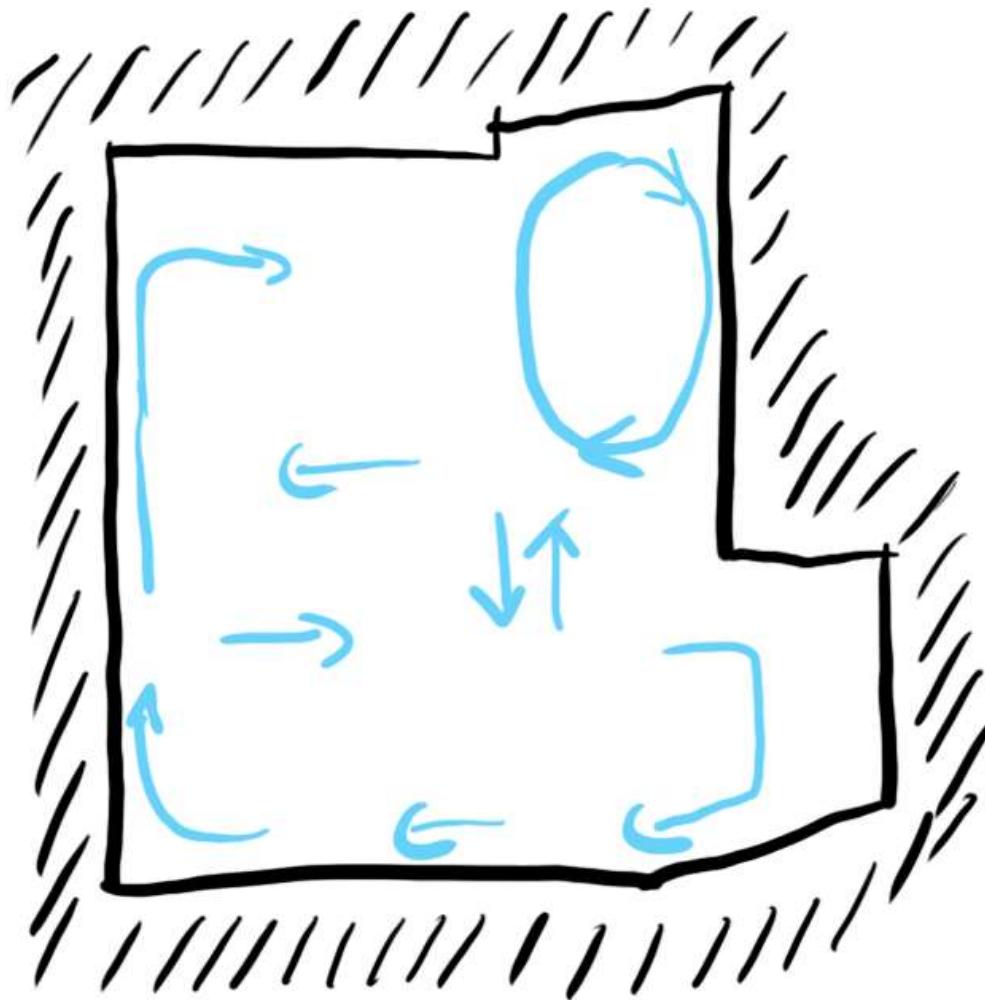
tiocrt, adicija paviljona



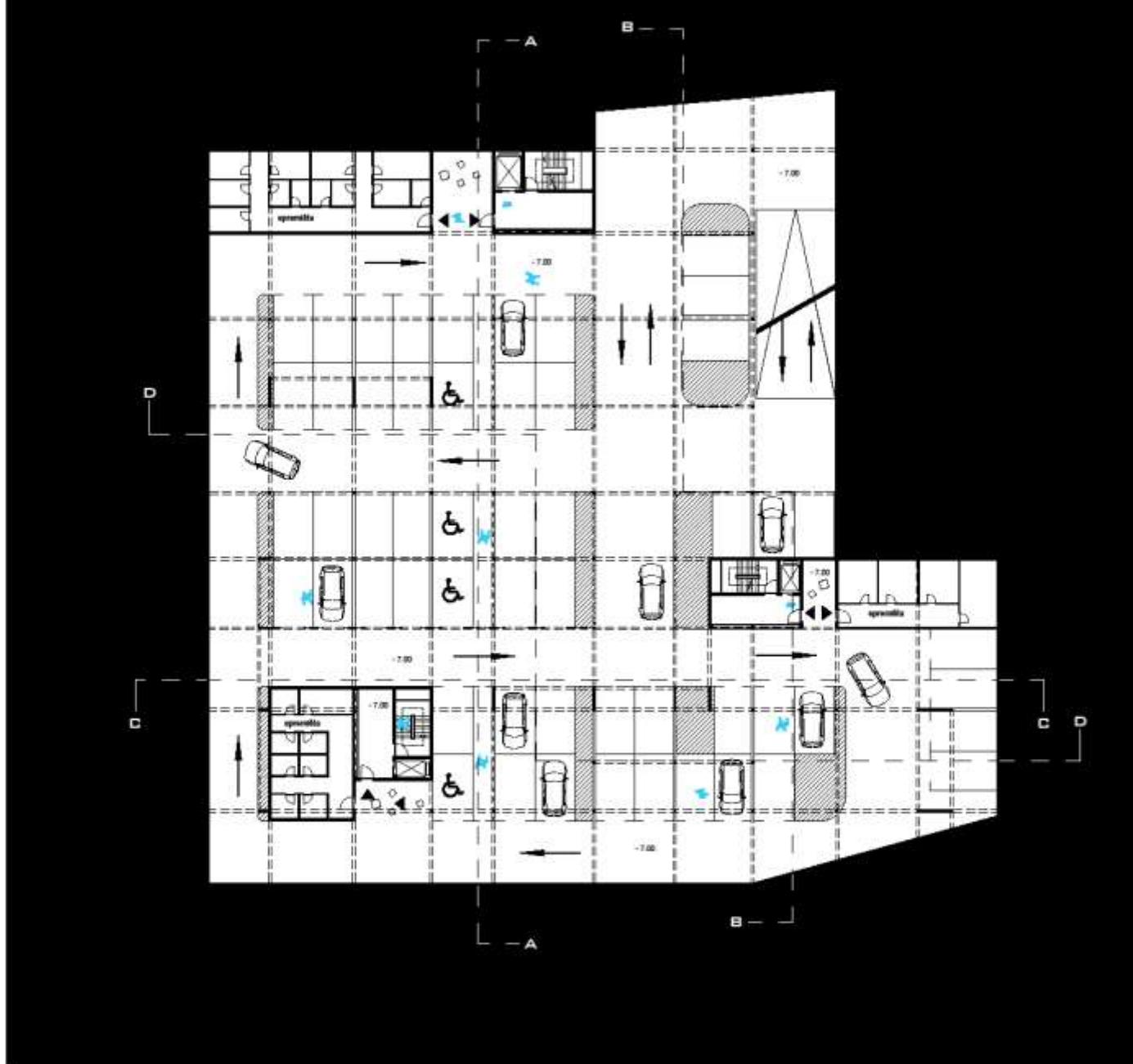


urbanistička maketa, kontrola visina





cirkulacija garaže





Shematski tlocrt organizacije programa na -1 etaži

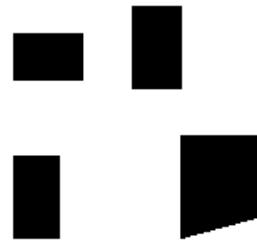




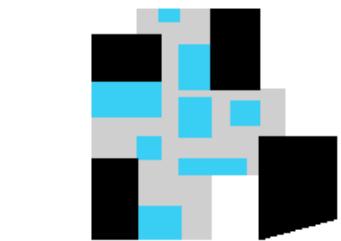
ULICA



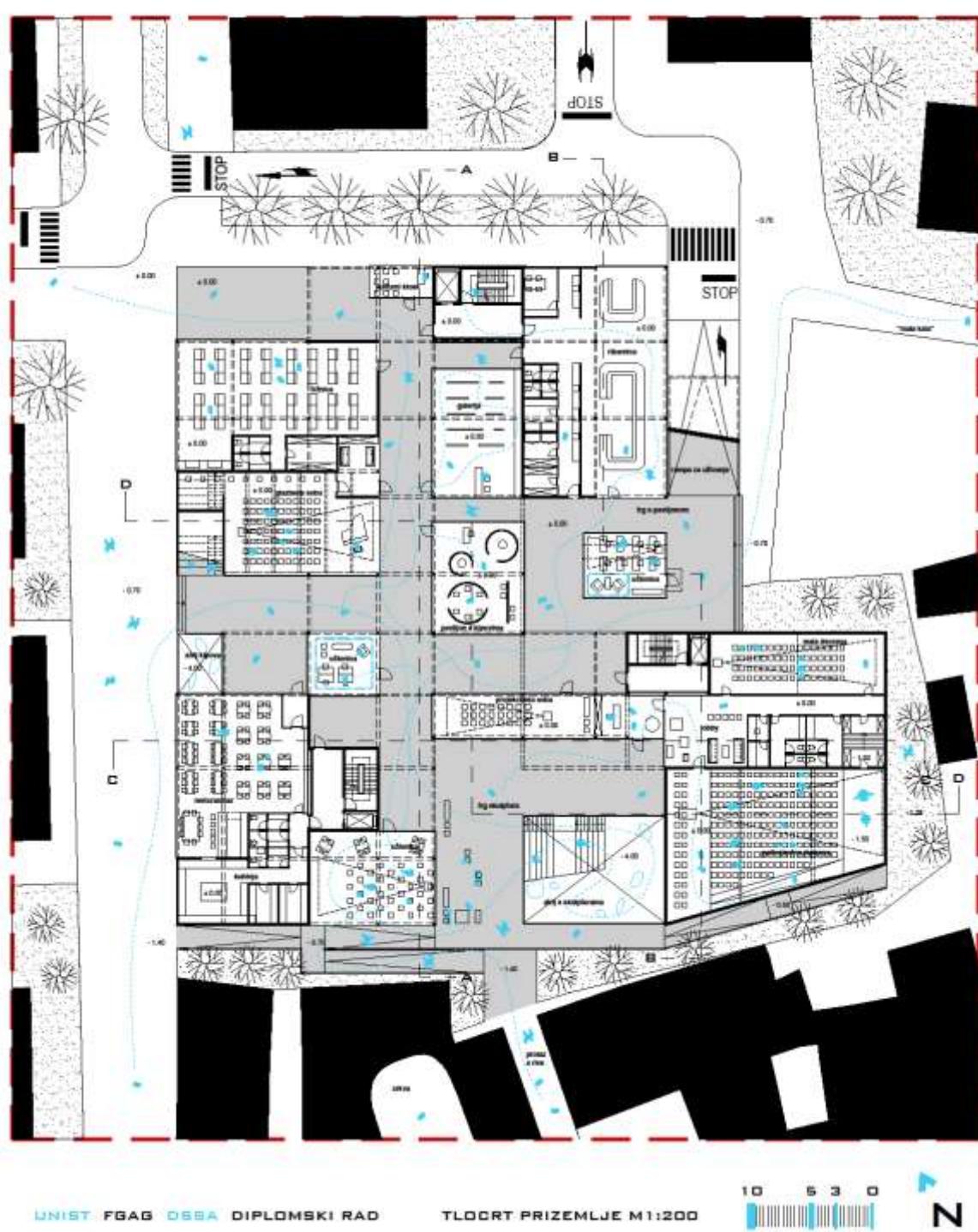
KULTURA



KOMERCIJALNO



CENTAR URBANE KULTURE





PVN TRG



TRIBINE



POSLOVNI CENTAR



CENTAR URBANE KULTURE





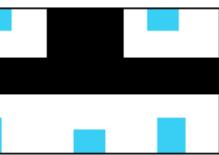
OVOJNICA



VANJSKI PROSTORI



SERVISNA ZONA



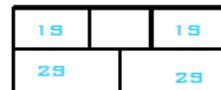
STANOVNI



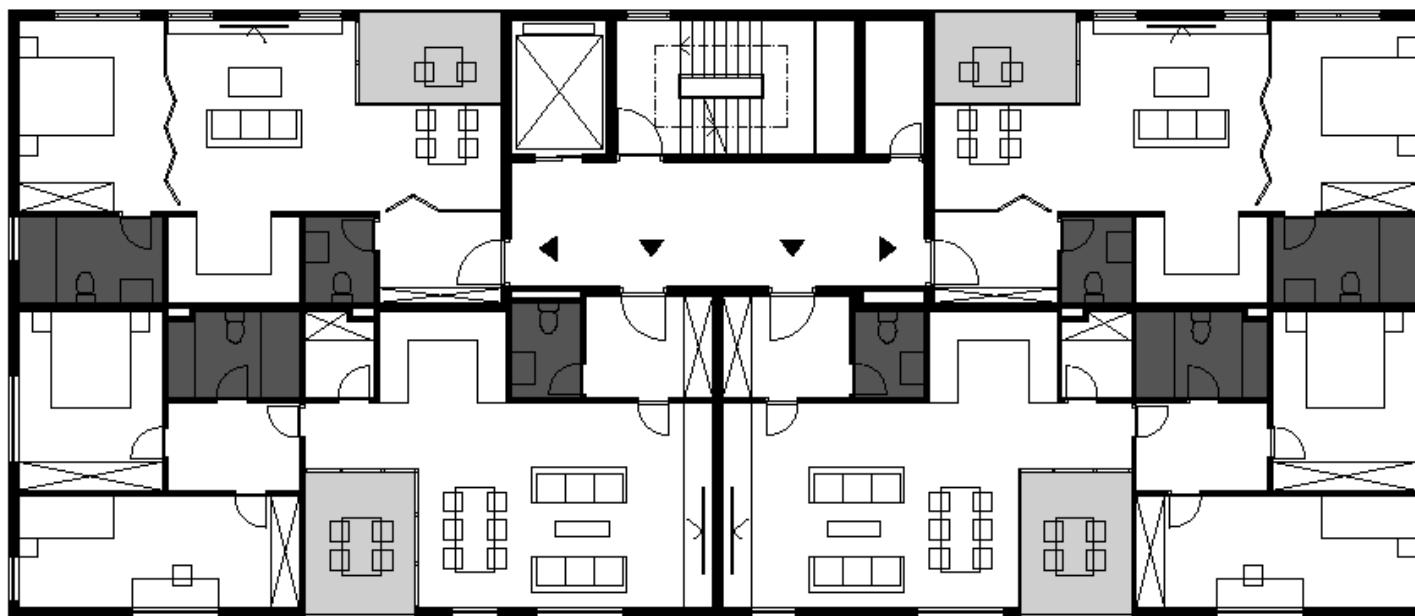
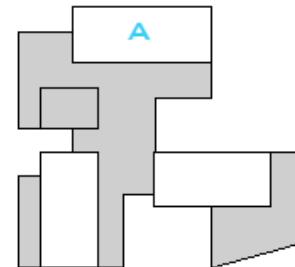
Zgrada A



Servis



Stanovi



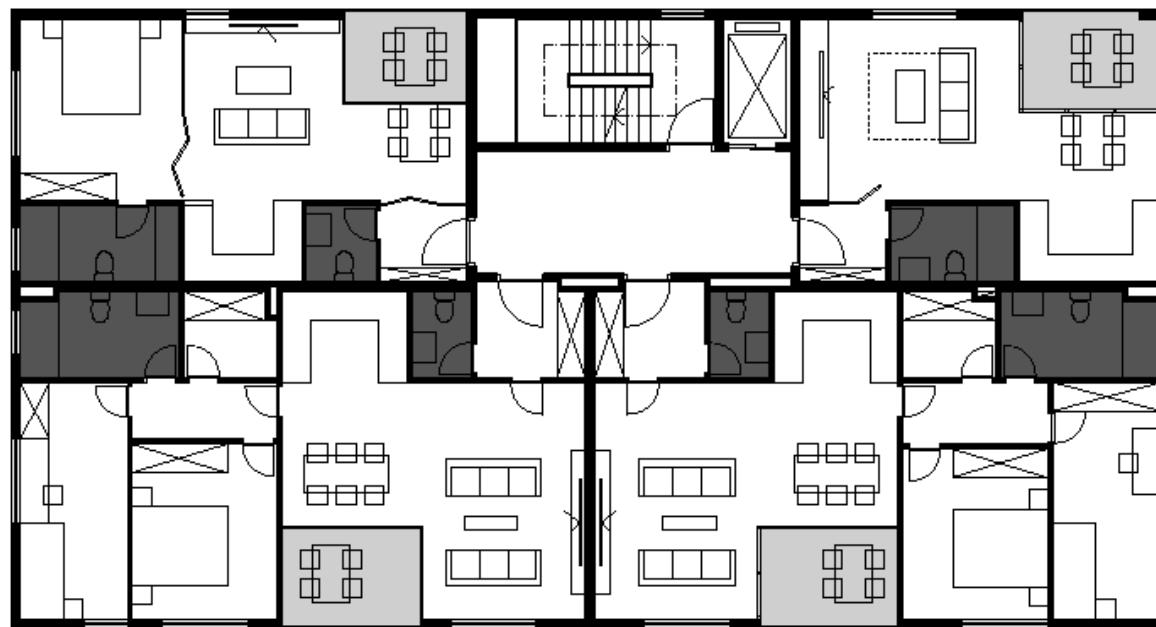
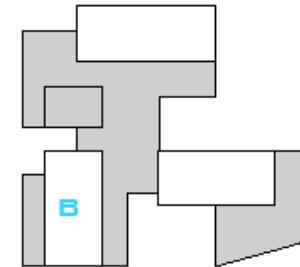
Zgrada B



Servis



Stanovi



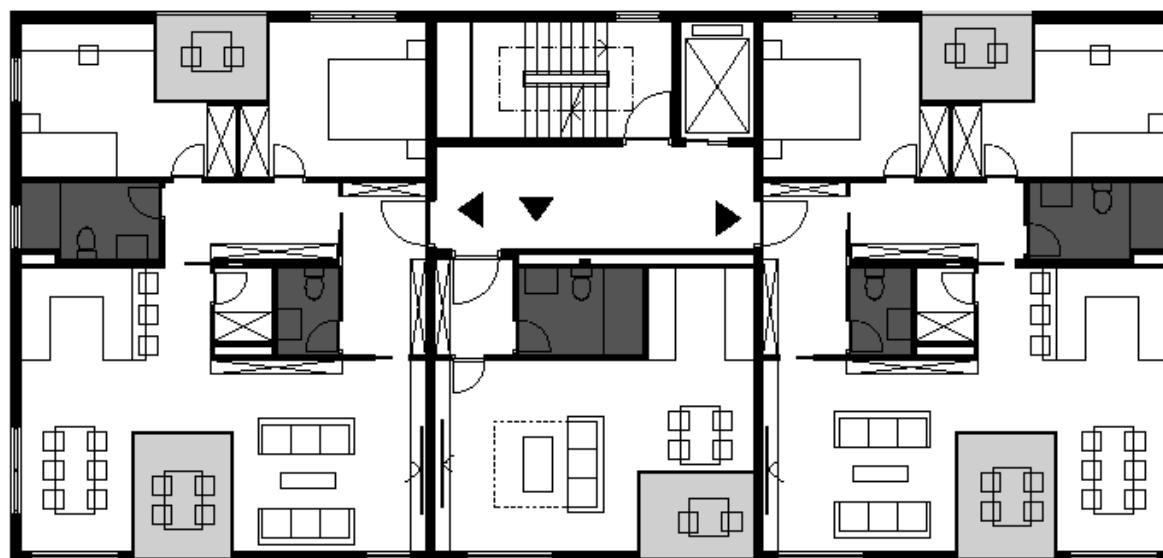
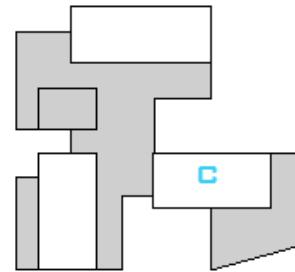
Zgrada C

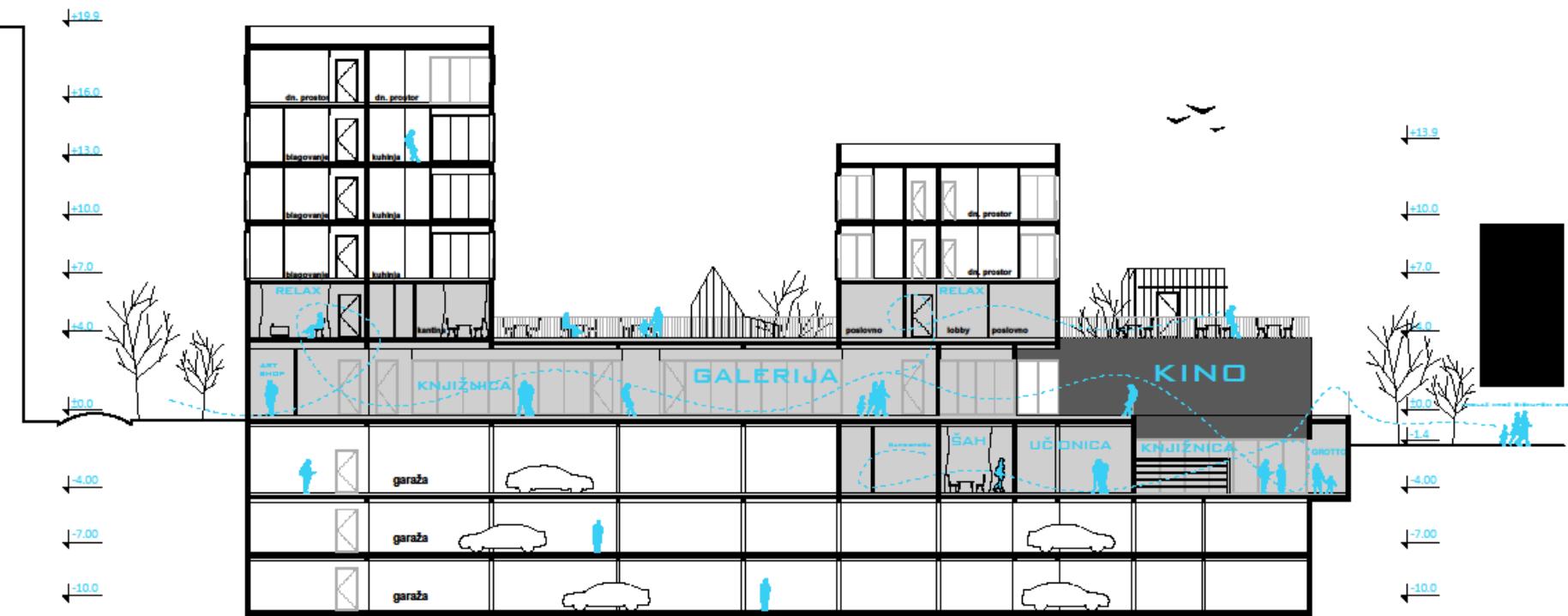
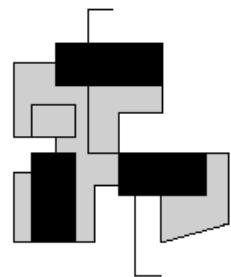


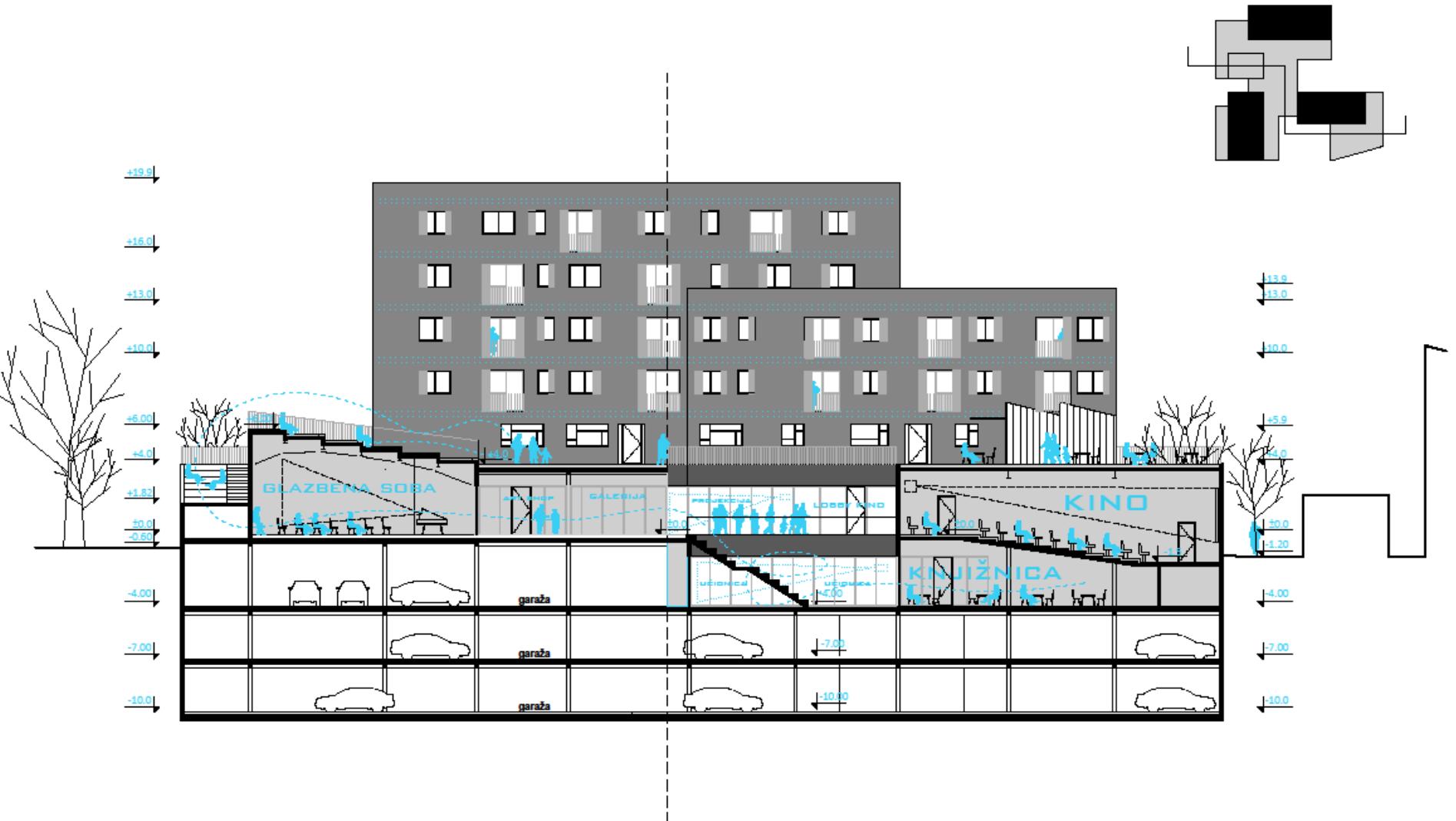
Servis

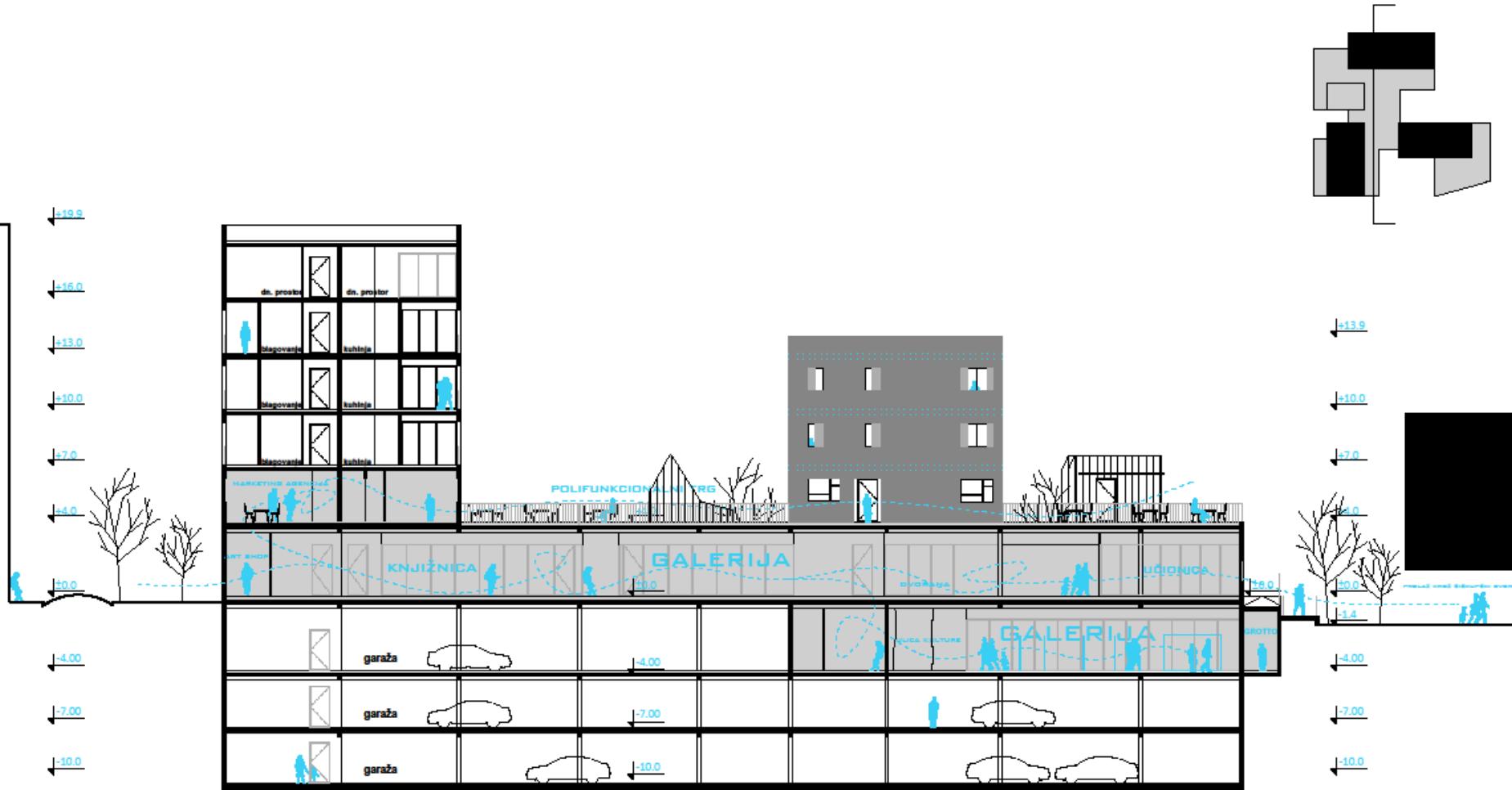


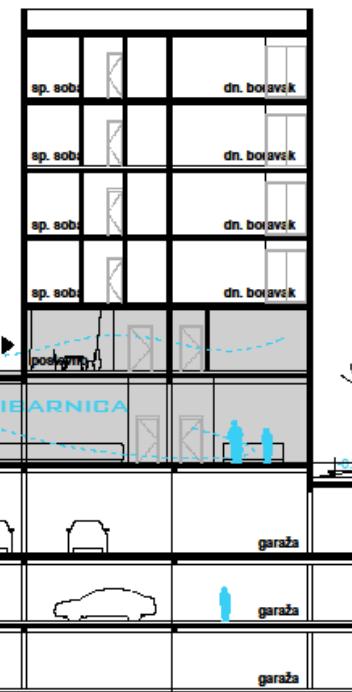
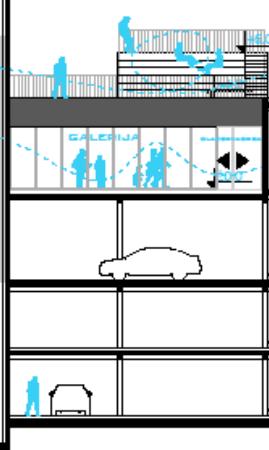
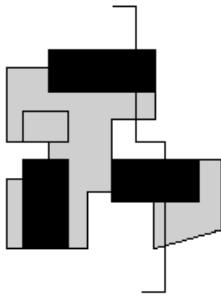
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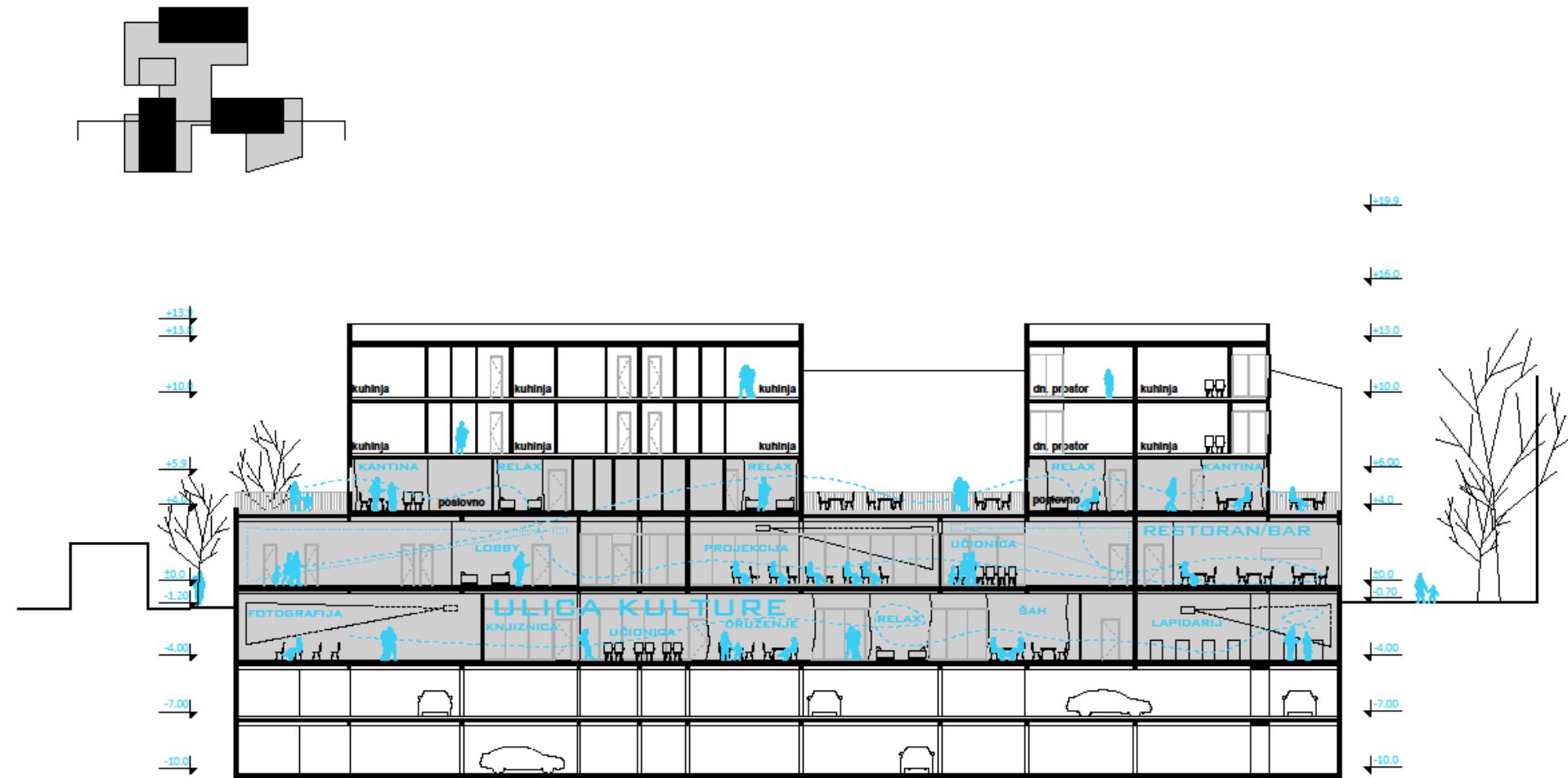


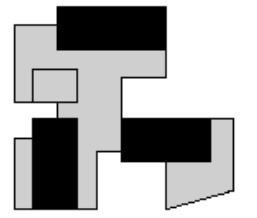


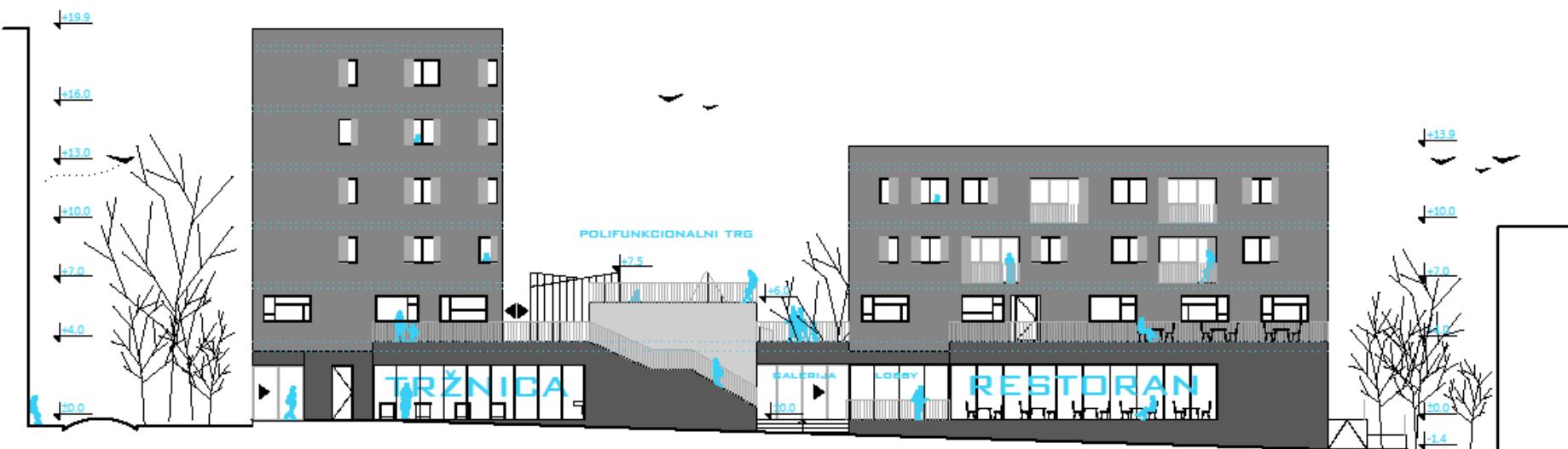
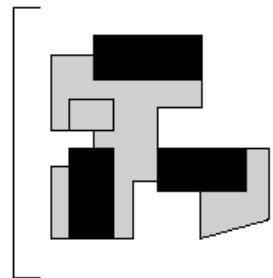


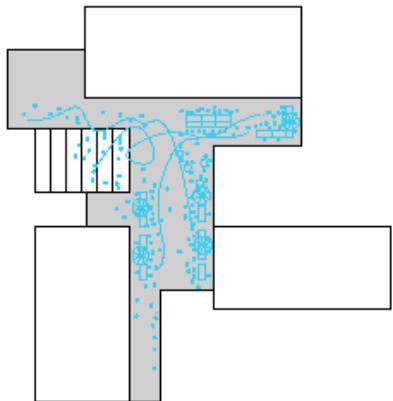




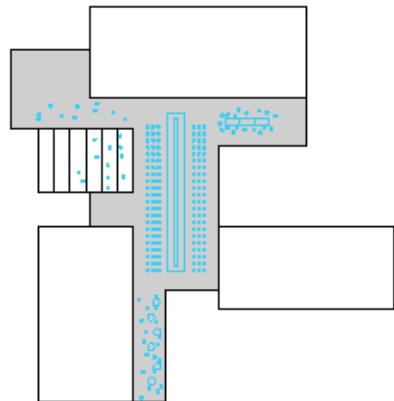




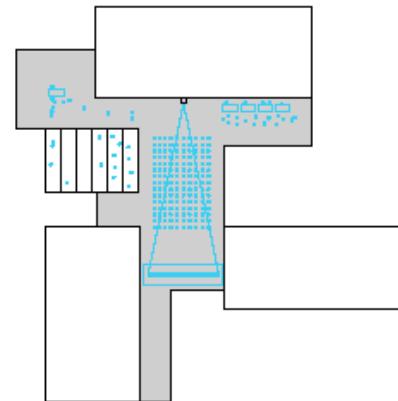




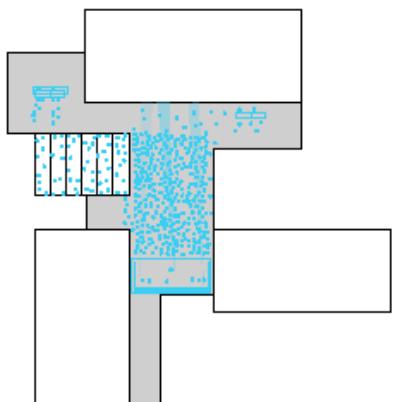
Gastro sajam



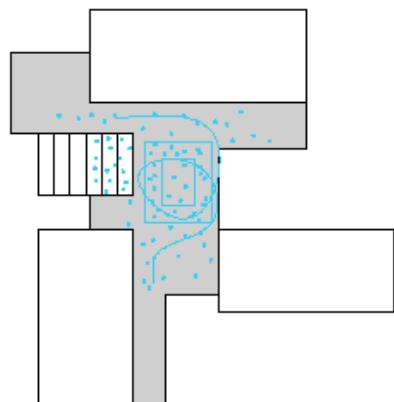
Modna revija



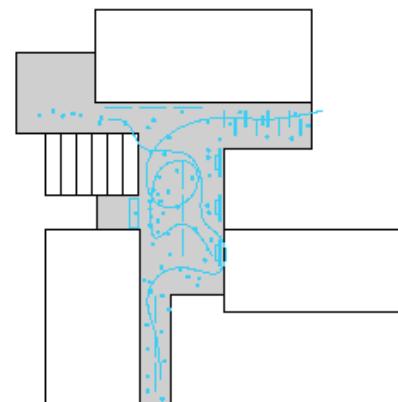
Kino na otvorenom



Dječji koncert

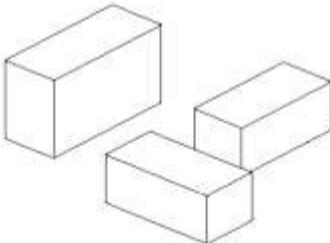


Tribina

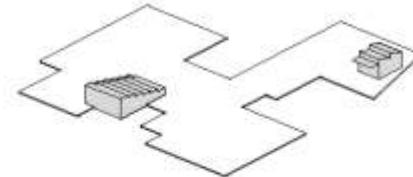


Izložba makarskih umjetnika

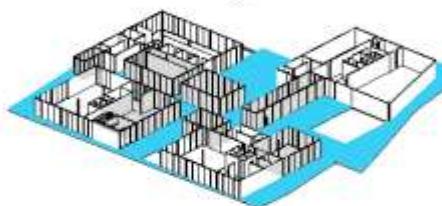
STANOVANJE



PVN TRG I TRIBINE

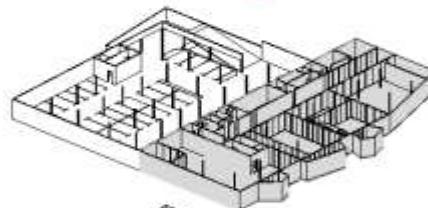


PROHODNO PRIZEMLJE



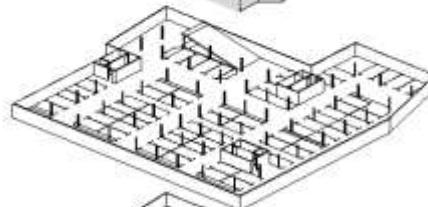
KULTURA

GARAŽA



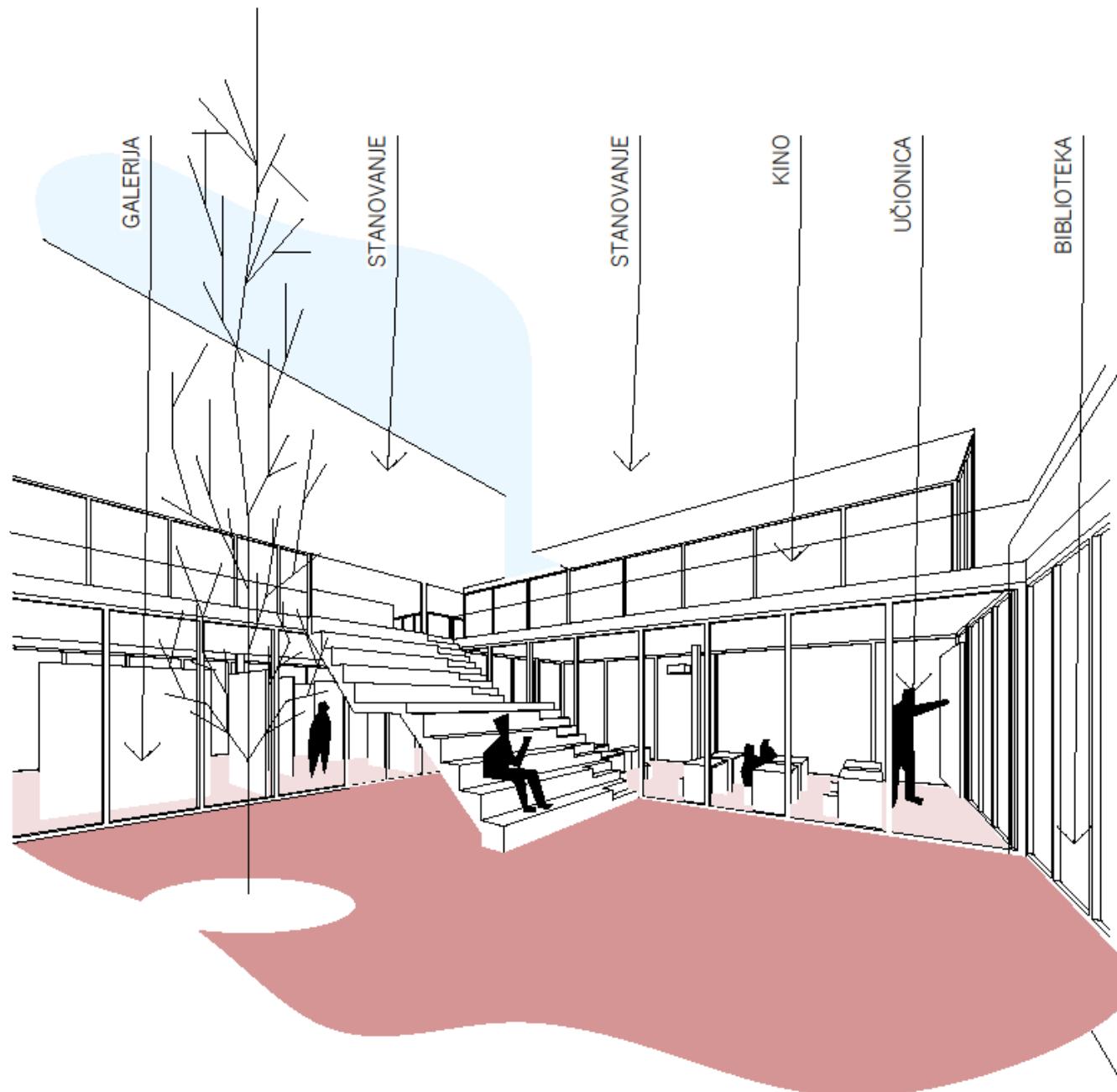
KULTURA

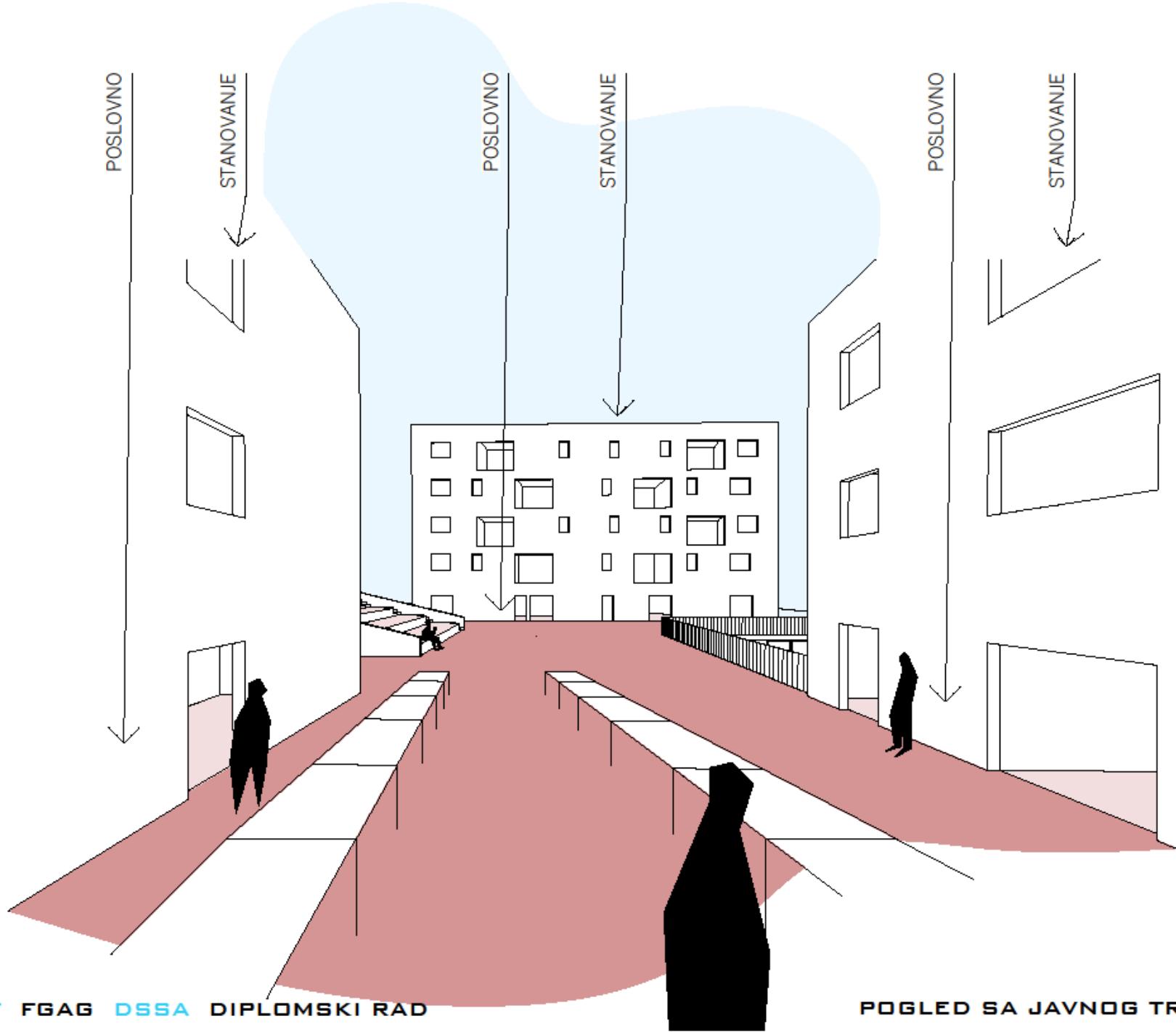
GARAŽA



GARAŽA

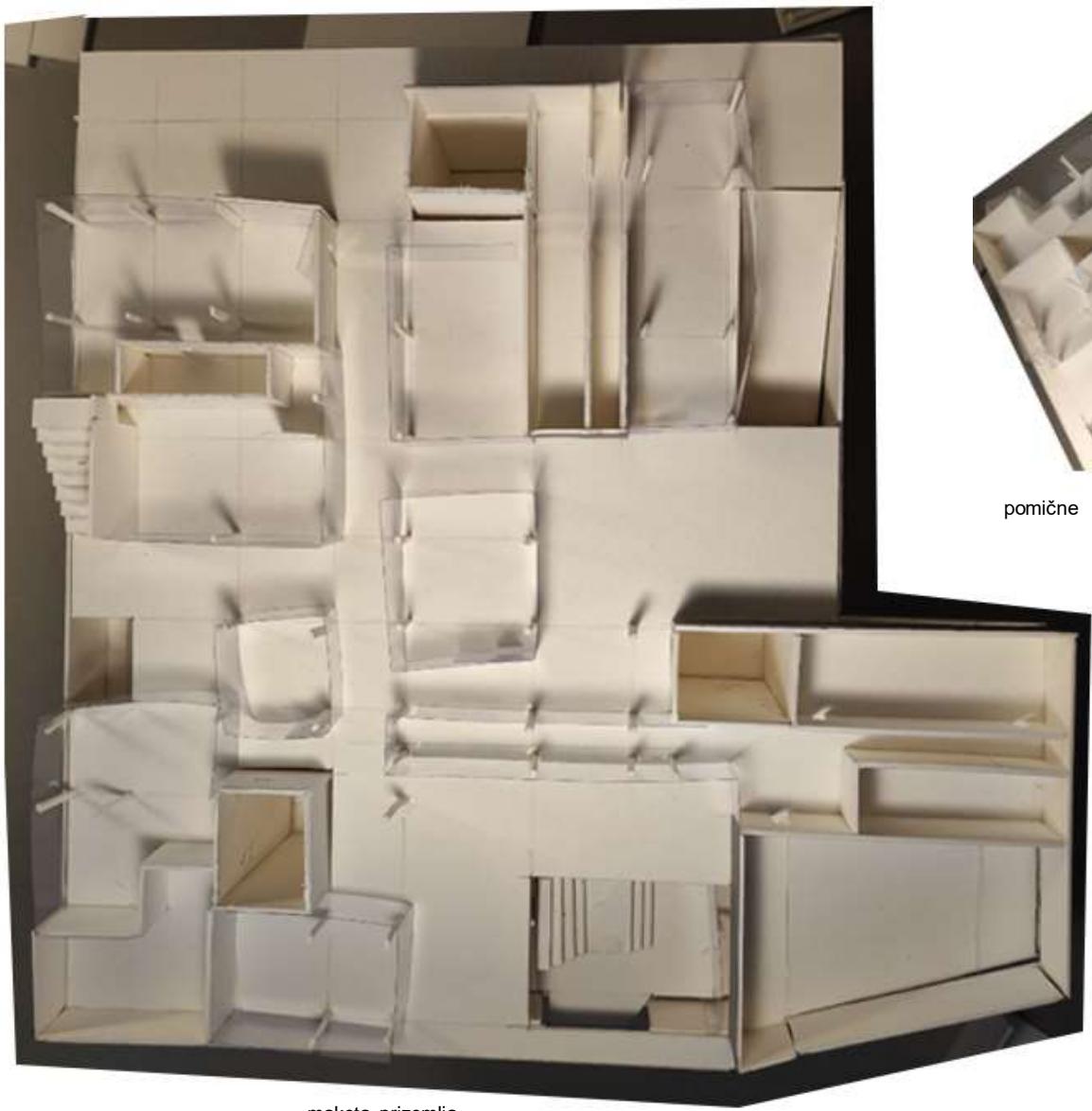








maketa etaže -1 kultura i garaža



maketa prizemlja



pomične staklene kubikule

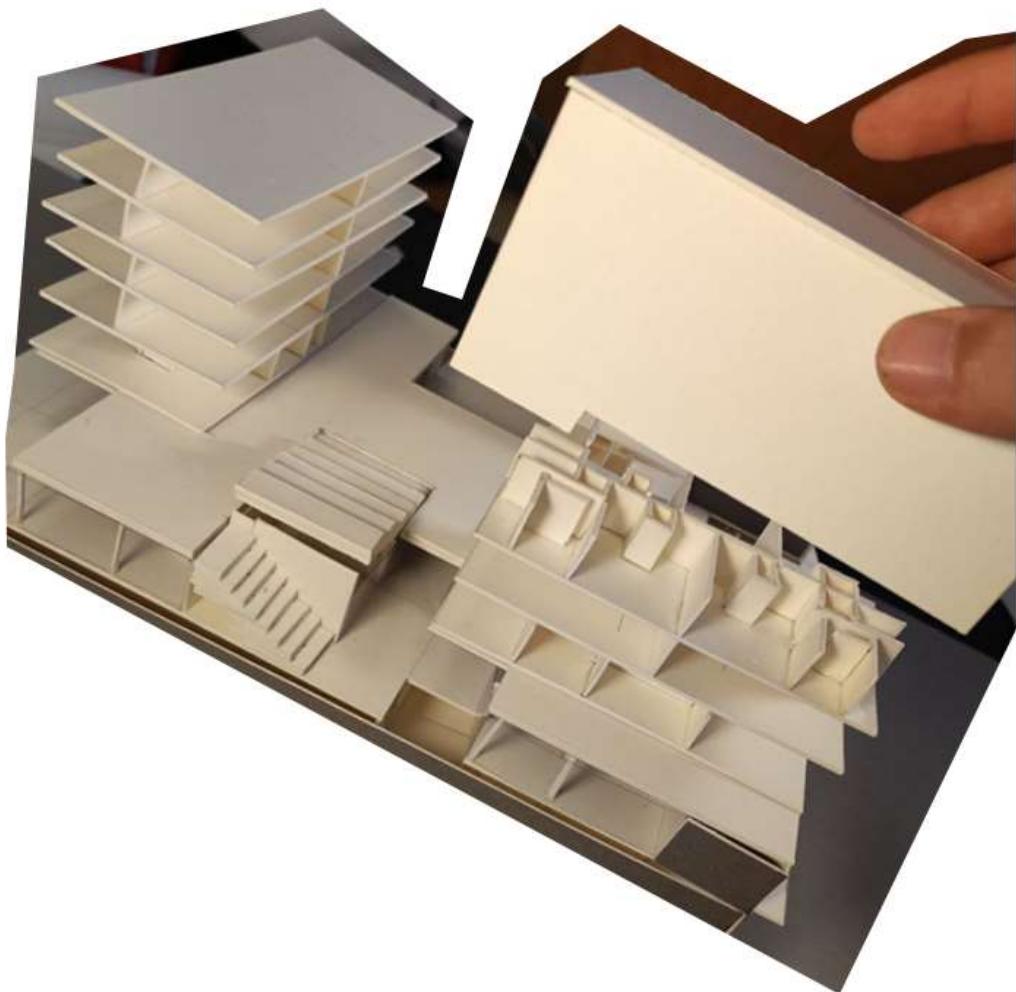


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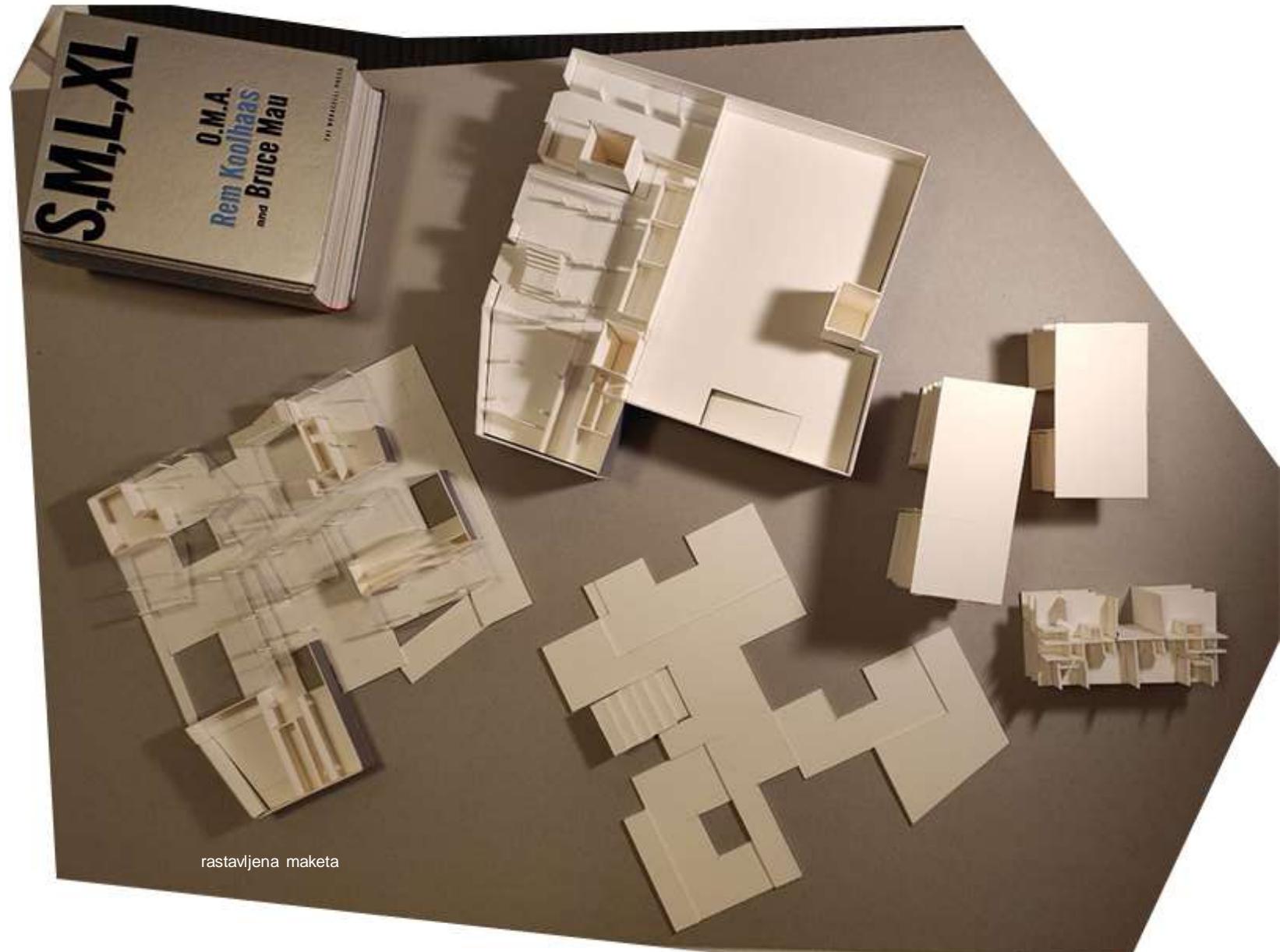


1. kat, poslovni centar





karakteristični stanovi



rastavljena maketa