

# **Do-it-yourself Suburbia**

## **The Portrait of an Informal Settlement**



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## **The Portrait of an Informal Settlement**

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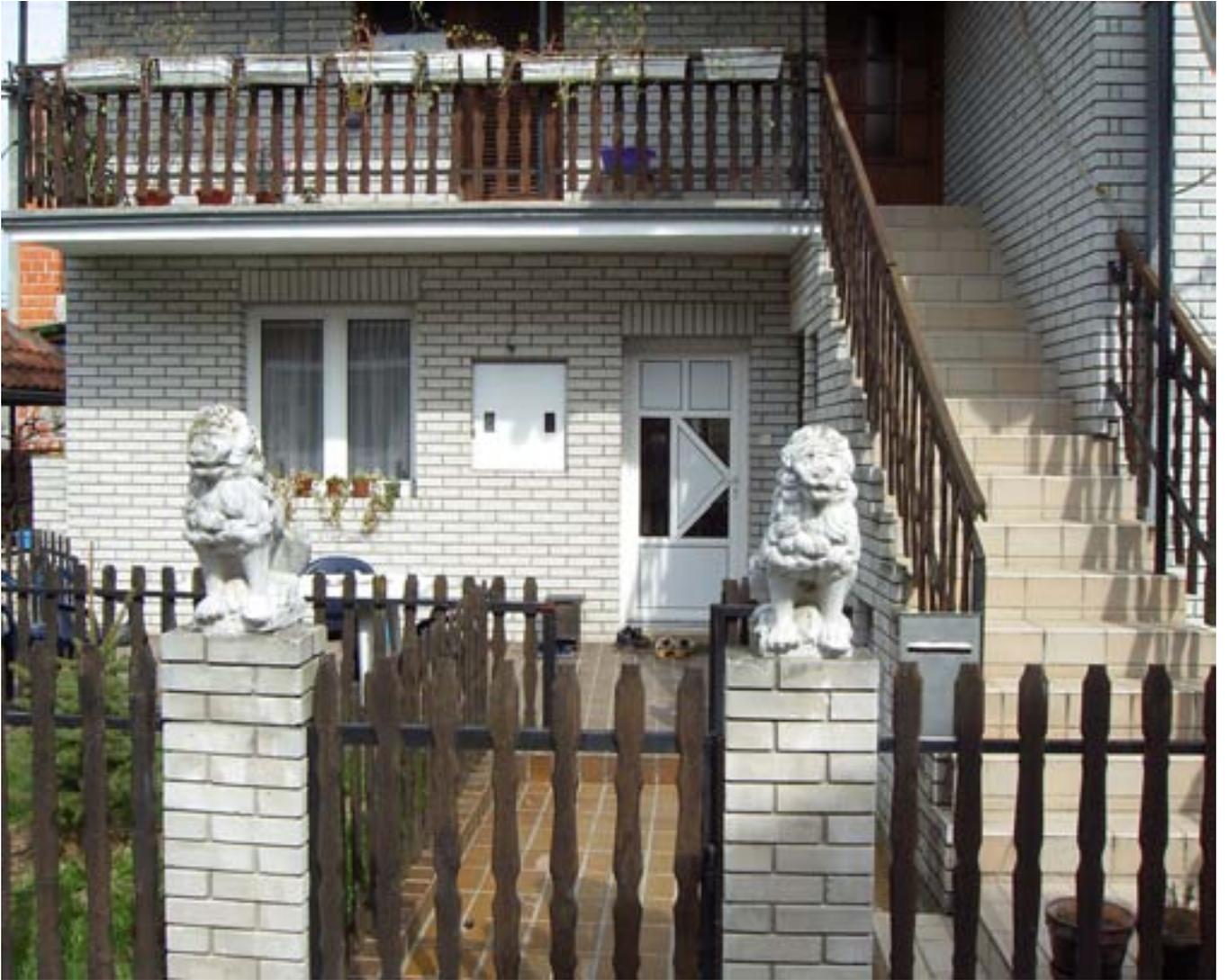
# Introduction

The goal of our research on the illegal settlement of the left shore of the Danube is: the recognition of mechanisms, which lend a city such as Belgrade its particular character. We also hope to discover which processes have enabled the maintenance and development of the particular characteristics of this peripheral zone, in the northern section of the capital city. Further, the attempt will be made to develop a theory of the specific factors, which define future interventions on the level of both architecture and the city as a whole. The following questions are used to aid us to grasp and comprehensively define the complexity of the transformations: How do Krnjaca and Kotez develop a specific character over time? How has this specificity increased and how was it produced and maintained? Which events lead to the building culture, which has made the northern periphery of Belgrade so unmistakably different, and at the same time so incredibly similar in appearance to other urban, peripheral developments? Our method in the portrayal of our area consists of the description of the phenomena, which define a particular circumstance. However, as we deal with a phenomenon, which on first sight present unclear relationships forged by antagonism, we must continually prop our analysis on hypotheses, which may often lead to false conclusions. So we ask ourselves, if the specific character of this city sector is defined by a cultural tradition or perhaps by its collective mentality. Perhaps a collective "lived culture", laws and rules, a "will to establish order" or a combination of these factors? Our most important instrument was the interview. Background information was collected from officials and institutions. We were encouraged by the helpfulness and engagement of professionals, to approach people directly and ask intimate questions without embarrassment. Our most

important information however, was collected first hand from residents and builders in Krnjaca and Kotez.

Their statements were often subjective and we were challenged to extract as factually based information as possible, without over interpreting the information we received.

At the end of our research we discovered, that our deductive method of conclusions coupled with a systematic interview as the basis of field research, led us to a synthesis which was supported by the facts and which we can maintain with certainty. We would like to cordially thank all the people in Belgrade who helped us in our research. Not only because they took the time to answer our questions, giving us valuable information, but also because, through them, we came in direct contact with the protagonists of our area of investigation.





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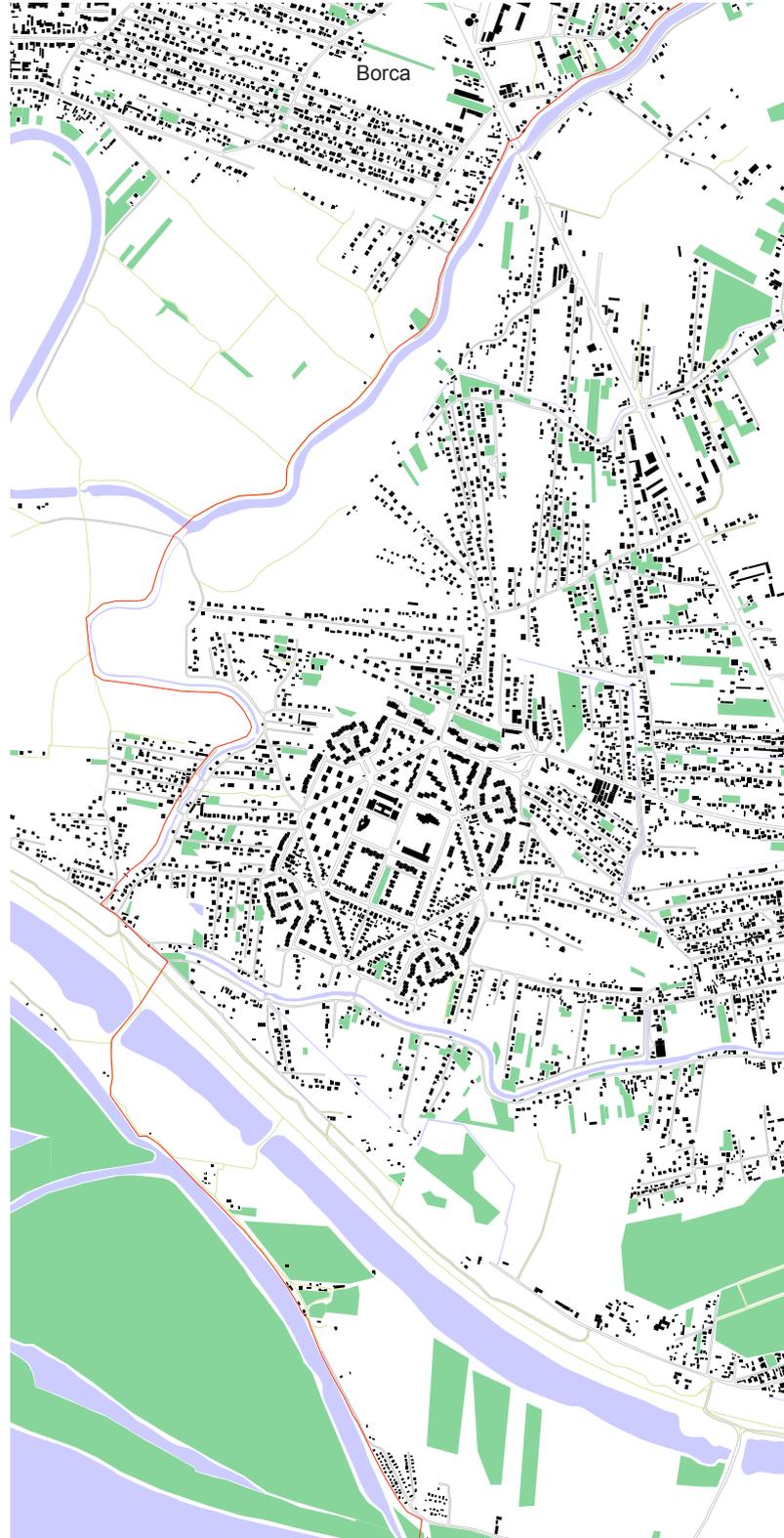
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Area at the Left Shore of the Danube

The area belongs to the city sector of Palilula and is located on the left side of the Danube. The Pancevo Bridge is the only connection to the center of the city. Two main streets, Zrenjaninski and Pancevacki, lead to Borca and Ovca, respectively. This suburban zone borders the Danube to the south and runs along the "Reka Cецec" canal to the north. With its two street axes, the area surrounds a lake, which is used, by a private owner, for the cultivation of fish and is closed to the public.

Large-scale industrial buildings are found along the main street of Pancevacki, which leads to Ovca. On the left side of the area, along the main street of Zrenjaninski to Borca, foreign investors have planned large construction projects. Of particular interest is the planned residential area of Kotez, which is to resemble a garden city. At the same time, the residential zone is impacted by the ramifications of informal building activity around Kotex.



- road ———
- railway ———
- dirt road ———
- border of the municipality of Palilula ———



Until after the First World War, the area north of the Danube stood under Austrian-Hungarian reign. In the early 1950s, the region was still sparsely populated. Only single farmhouses, surrounded by cultivated land, were scattered throughout the rural area.

The Master Plan of 1972 delineated an industrial and agricultural zone on the left periphery of Belgrade.

Immediately however, urban planners were confronted with the problem of the soil conditions on the left shore of the Danube: the high ground water level impeded construction and the installation of infrastructure. In the past years, 30 to 40 canals have been built in order to protect the land from floods.

At that time of the Master Plan, the land belonged to the state or few, large associations (PKB, the largest agricultural manufacturer in Serbia). Practically no private ownership existed during the socialist times of the 1960s and 70s.

In light of the apartment shortage of the urban center, Kotez was planned by the city, in close association with the firm PKB, and construction was begun in 1968. The main goal of the Master Plan of 1972 was new settlements, in open, green space. Social housing, with large-scale green zones, were to be erected in Belgrade. The construction of single-family homes was less of a priority during this time.

Due to the increasing immigration and the apartment shortage, more people began to build their own single-family homes.

The informal construction of single-family homes increased steadily during the 1970s and 80s, until a strong explosion of this form of construction took place after the political crisis of the 1990s and the subsequent increase in immigration.



An old map of Krnjaca and Kotez hangs on the wall of a small library at the center of Kotez.



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## Settlement Structure and Morphology

## Settlement Structure and Morphology Phenomenological Approach

Physiognomy of Krnjaca and Kotez- a wild, urban peripheral settlement, north of Belgrade. An attempt to comprehend the organization and principals of order in an informal settlement.

Observing Kotez and its immediate vicinity from a bird's eye perspective, a hybrid texture is distinguishable. The view can be associated with a fictive Cephalopod, or a type of jellyfish, which, starting from its central organ, in our case the garden city of Kotez, extends its tentacles radially, in all directions as if to gage the milieu for favorable conditions. These tentacles can be classified into primary, secondary, tertiary etc... In terms of urban form, we deal with streets, lanes and paths, whose differing levels of development can be attributed back to the problematic of infrastructure and transit routes. When they come across favorable conditions, these arms begin to sprout, developing whole sectors of parallel hairs- the streets of the neighborhood. The same form of development emanates from the main street in the direction of Borca. The planned parts of the settlement act as starting points, in that they deliver the initial physical and infrastructural conditions of further development.

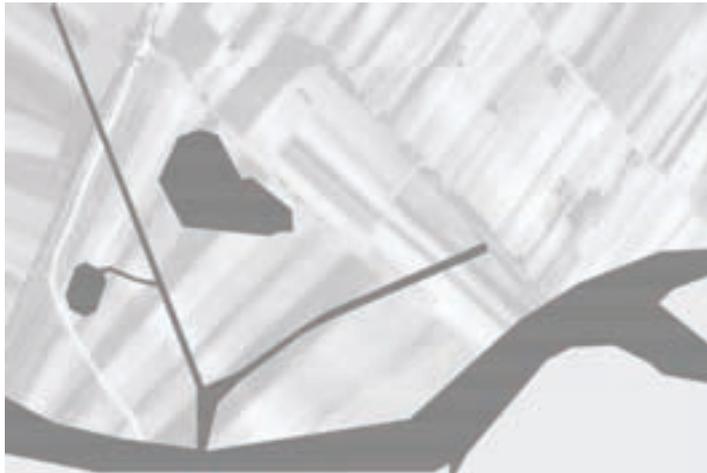


## Settlement Structure and Morphology Primary Elements

On the one hand, the constellation of this suburban realm builds the foundation for an understanding the development of its built form and, on the other, presents a starting point of a complex structure.

As constituent elements for the reconstruction of the urban development, we have defined the following:

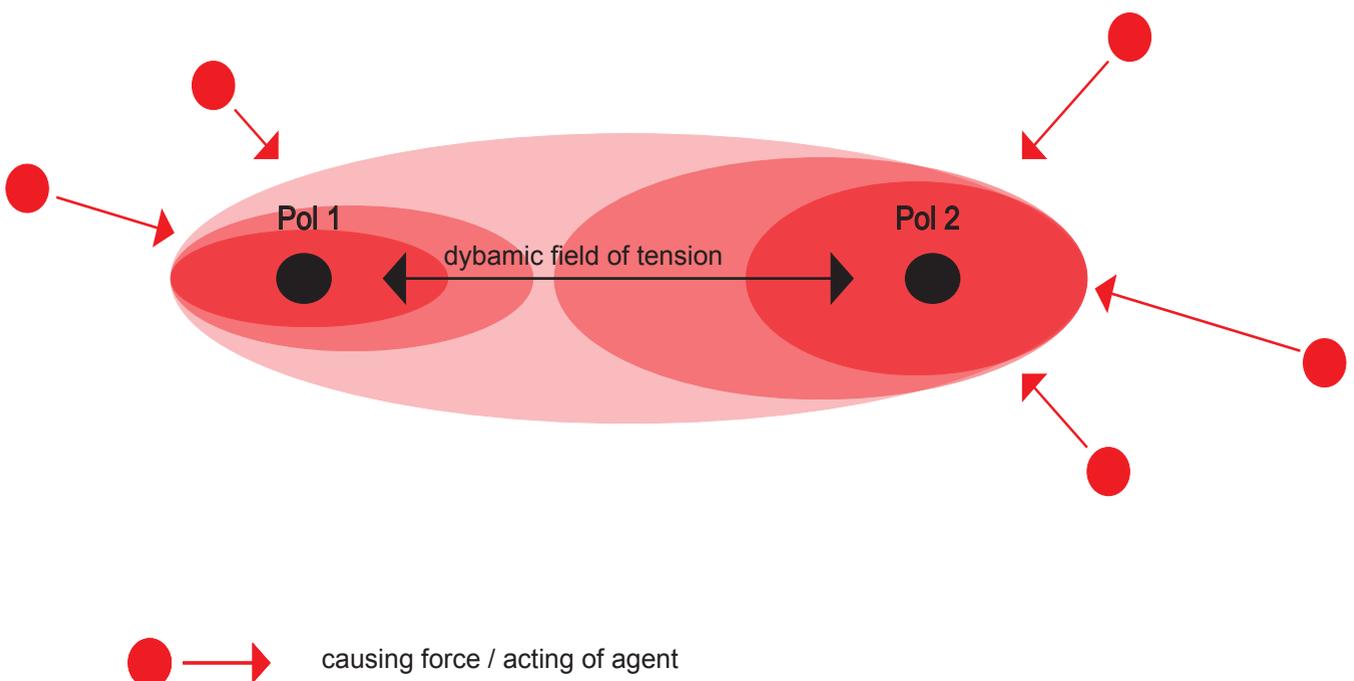
- The Danube **River**, which closes off the northern periphery in the south.
- The Pancevo **Bridge**, as single connection to the urban center.
- The two **main streets**, Zrenjaninski and Pancevacki, which lead to Borca and Ovca respectively.
- The **paths** for the access to rural areas.



## Concept Model: Dynamic Balance

A model of dynamic balance is introduced in order to represent the interaction between the forces driving the development of our study area. This means, the point of equilibrium, over multiple planes, in a bi-polar system. Force will be used as overarching definition for the treatment of an entity or group. The force is exerted on a pole in a constant or temporary manner. One pole is representative of all actions on the part of planning, for instance, the Planning Institute, the urban sector, the legal regulations, inspectors, politicians, etc.... while the other pole is generated by the informal building culture, as well as the landowners, builders, and residents who make up the neighborhood.

In this model, all active forces (protagonists) are presented equally, because as it is not relevant in our observations to which pole these forces belong. However, significant are instances during which a force, or protagonist, nears the "legal pole" at one moment, and acts to further the informal building culture at another. For instance, through the implementation of a rigorous building law, a politician can simultaneously stand opposed to illegal construction, while also permitting a builder the illegal construction of additional floors onto his home. In time, the relationship between the involved forces may thereby be shifted. We do not interpret such an overlap as a loss of balance or collapse- these facts would contradict us – but as an impulse for the maintenance, further development, and integration of a peripheral area on a partly legal path of development.



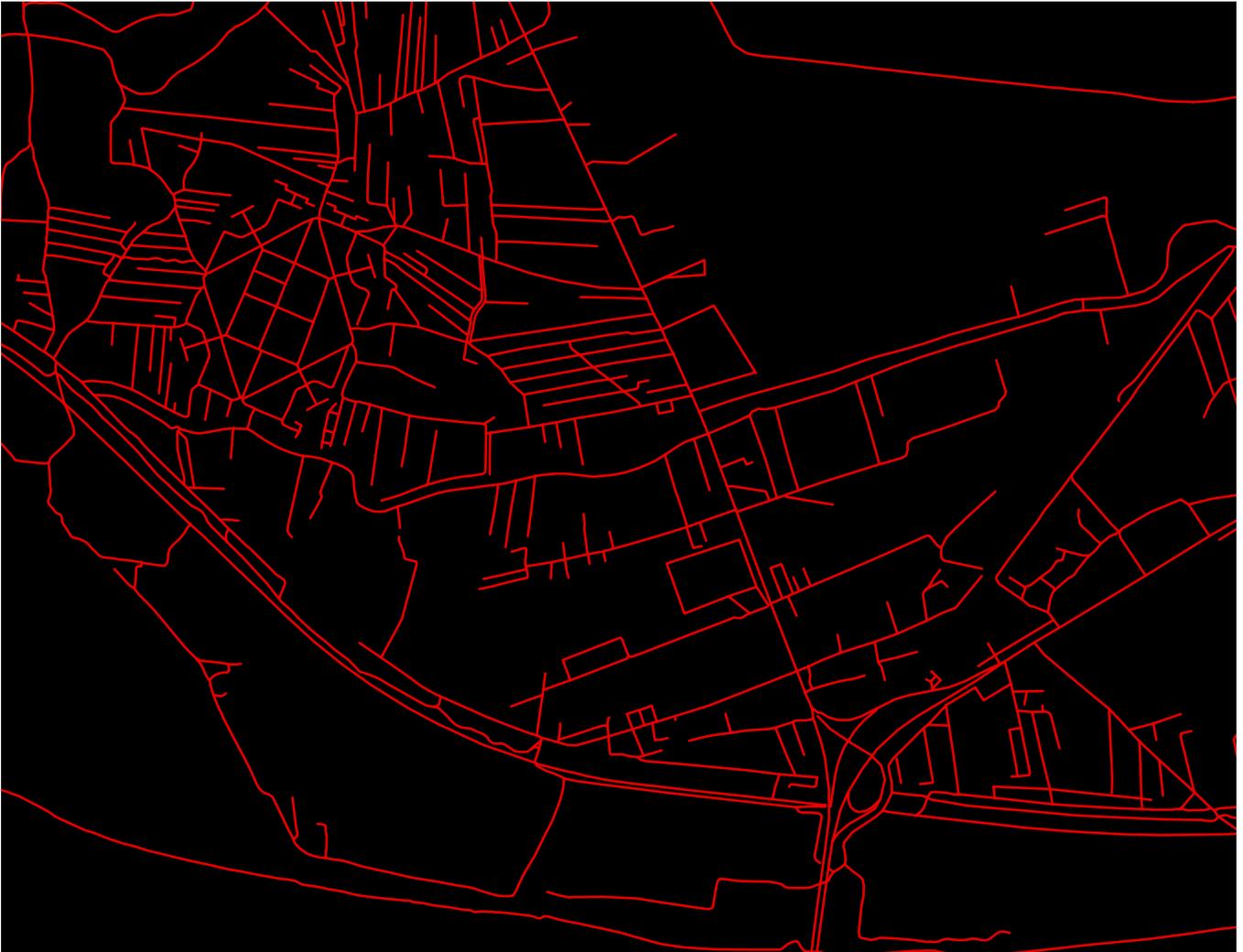
## Settlement Structure and Morphology

# From Path to Lane to Street and the Space In-between

Individual agricultural fields were divided into parcels and sold to future builders. The rural paths thereby act as provisional access paths to the individual parcels of land.

In each case, a tree-like structure possesses a primary element, which serves as starting point for further expansion. The approach follows the principle of “ attachment, development, and expansion.” In several instances, the axes are linked to one another, forming passages, overpasses, and frequent dead ends or courtyard-like situations.

According to a functional logic, the paths form along traffic axes. The spaces between residential streets thereby develop into overgrown, fallow green bands.



**Phase 1**

Streets and rural paths



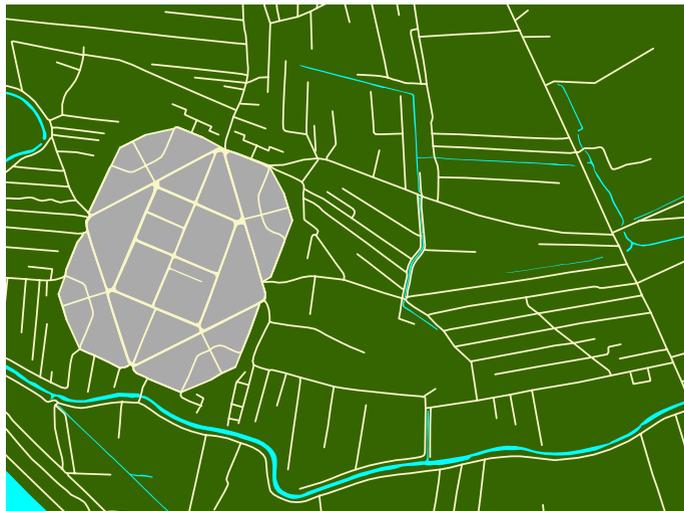
**Phase 2**

In time, arms extend to all directions. The beginning form of a tree-like structure.



**Phase 3**

Denser branch structure of the traffic axes.



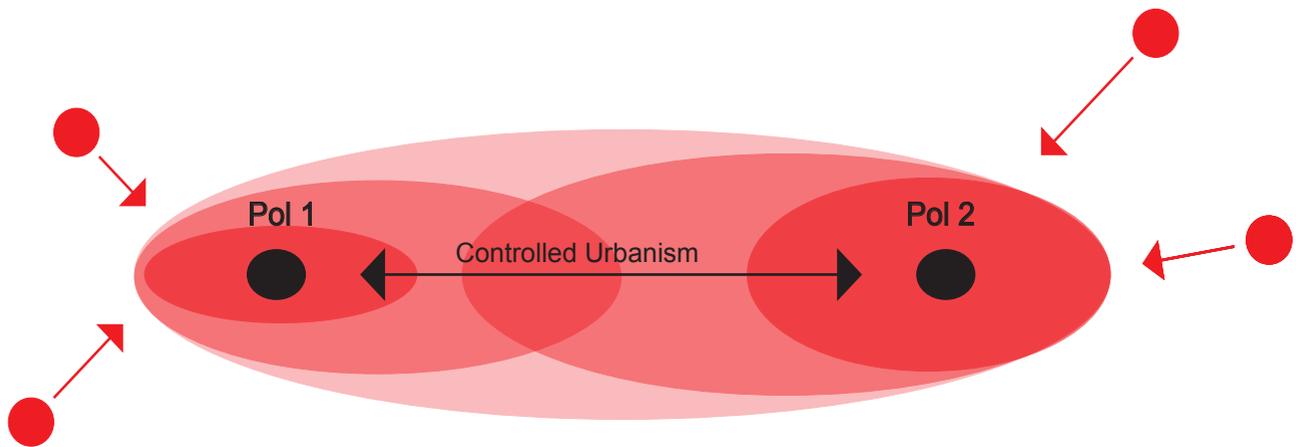
**Settlement Structure and Morphology** Rural Urban Periphery–  
Rural vs. Urban





The structure of the transit routes, as well as the built form of the area lead to the current morphology of this “northern-fringe.” Primarily single and two family-homes have a decisive impact on the settlement structure of the area. Gradual bifurcation, intersections, new addresses and new neighborhoods development in areas were the poorer classes settle. Should one analyze the evolution of the built form in the last ten years along a timeline, would could speak of a settlement explosion.

Dynamic Balance



Pole 1:  
existing structure (rural  
paths, streets)

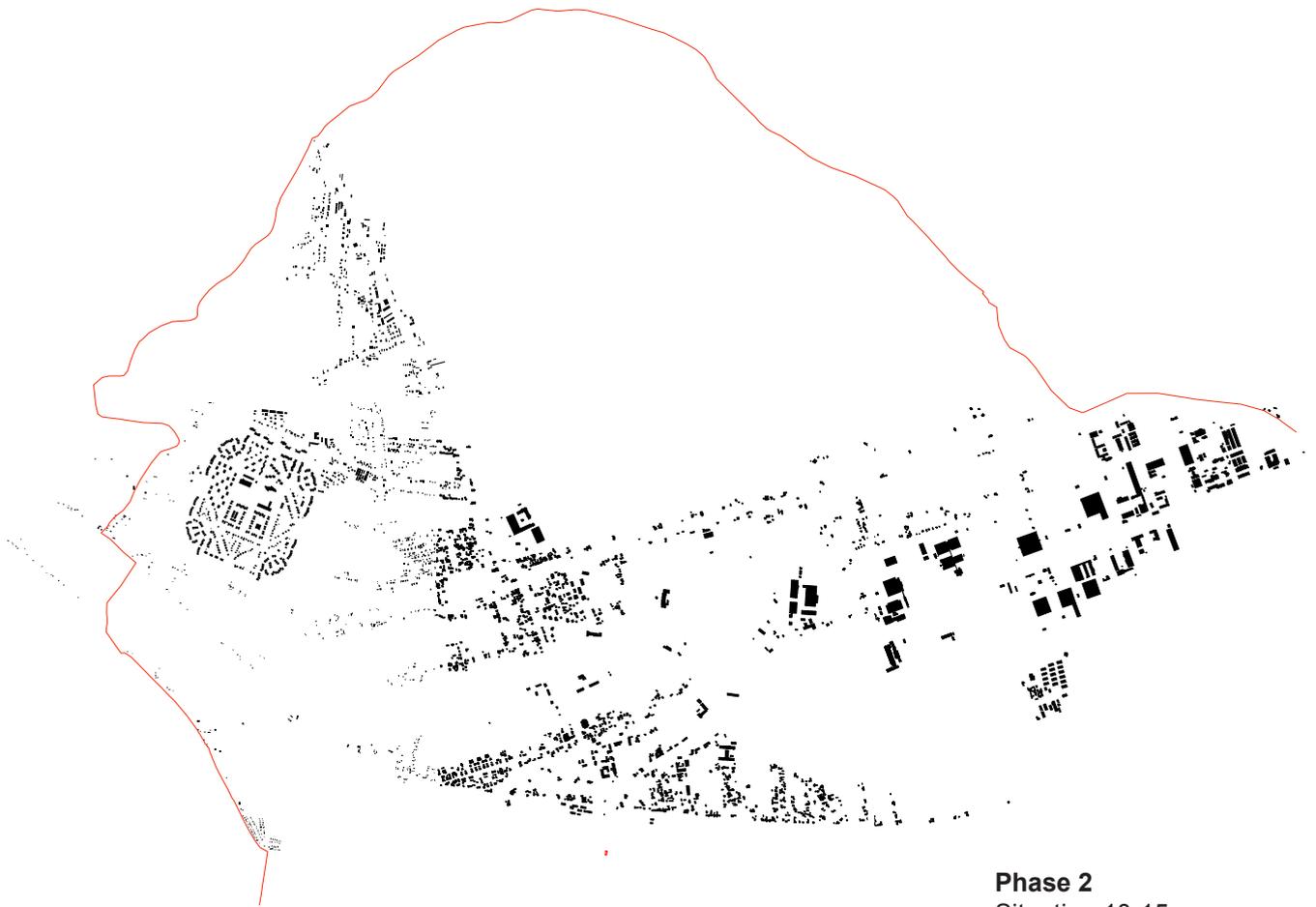
Pole 2:  
adapted land transformations:  
(parcels, buildings)



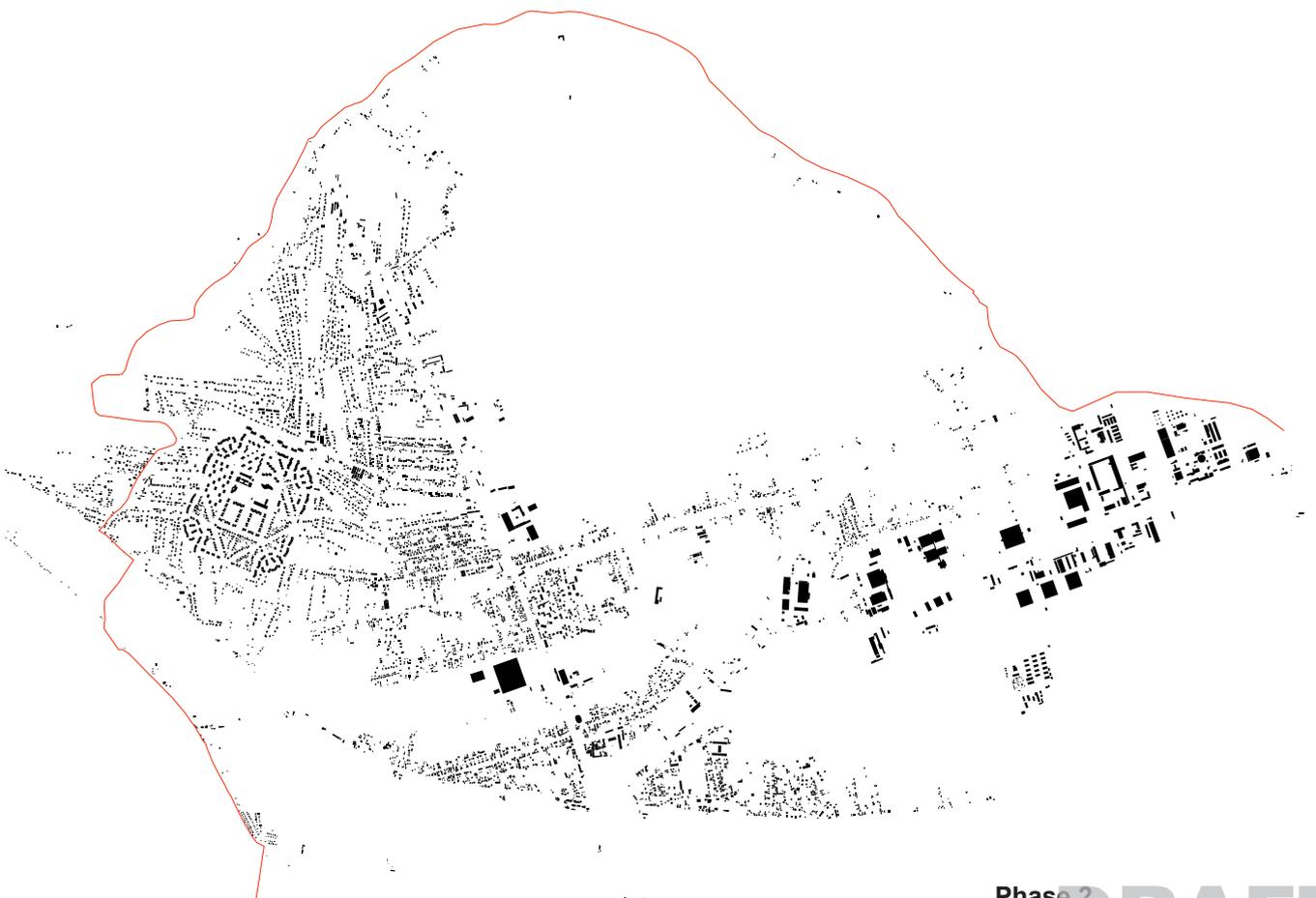
Farmers  
Agricultural engagement  
Planners (traffic, infrastructure)  
Politicians  
Industrialists



Landowners  
Farmers  
Builders  
Immigrants  
Contractors



**Phase 2**  
Situation 10-15 years ago



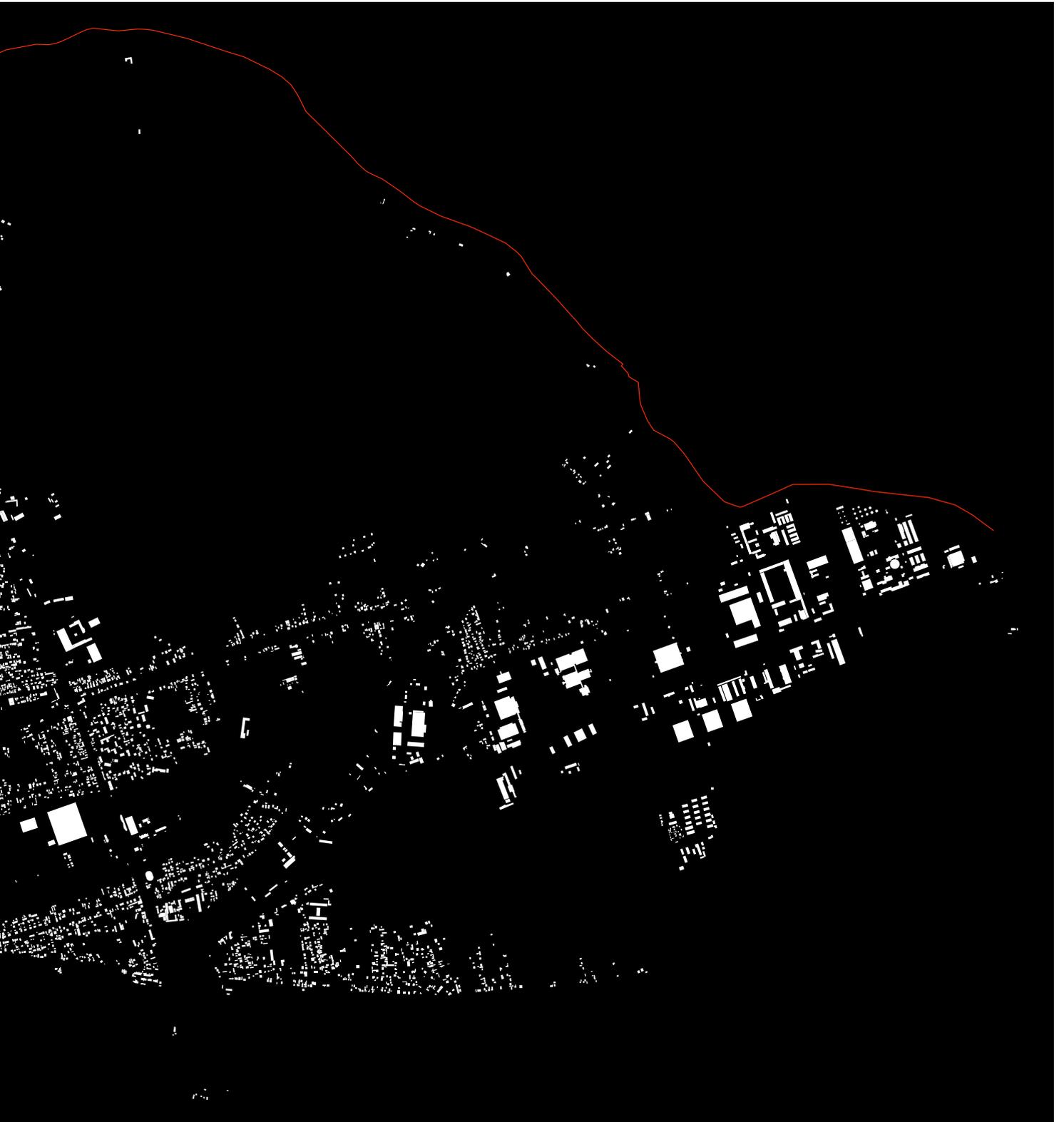
**Phase 2**  
Situation today

## Settlement Structure and Morphology Negative Plan with Buildings

Noticeable are the large, industrial buildings located along Pancevacki Street, which stand in contrast to the distribution of homes on the Zrenjaniski Street side. Although this industrial aerial occupies a generous surface area, the right side almost manages to fall out of balance. The area is strongly impacted by the dense distribution of single-family homes and businesses.

The planned portion of Kotez is strongly distinguished from the rest of the development. The contours of primary elements step into the foreground and can be characterized as attractors. A structure of organization can be recognized. In their transactions, builders act as part of an overarching whole.





## Infrastructure

Today, practically all houses in Krnjaca are connected to both electrical supply and running water. Yet, sewage disposal- canalization- is often limited or nonexistent, which means that each individual house must maintain and make do with its own septic tank. Residents come to smell the inefficiencies of these storage containers each time the water table of the river rises and the tanks create ecological and hygienic damage. The unhappiness with this situation can be read on the faces of people from Krnjaca when they speak about this problem. In the meantime, the urban residents make jokes about this deficit and ascribe the cliché of rural backwardness to Krnjaca.

Though official, public transit routes exist the area lacks access to an efficient bus network. Additionally, important local streets do not meet the proper requirements of traffic engineering. Among other reasons, this lies in the fact that, to a large part, the streets were constructed by the residents themselves.



# Settlement Structure and Morphology Main Access Route of Infrastructural Installations

The plan shows the distribution of the main lines of infrastructural supply. The Institute of Urban Planning in Belgrade is currently working to document the present conditions of the areas of Krnjaca and Kotez in the form of plans. Due to the rapid changes in the urban context it is difficult to collect the necessary data.



Vesna Isailovic,  
Urban Planning Institute,  
Belgrade

- road ———
- railroad - - - -
- main access route ———
- power line ●





## Settlement Structure and Morphology Kotez

### The Garden City

The settlement of Kotez, laid out in the form of a garden city, is a product of the public, urban planning initiatives, which occurred during socialist times, from 1968 into the beginning of the 1970s. The reason for this 'planned city' in open, green space was the accommodation of both industrial and agricultural workers, as well as the increasing apartment shortage in the city itself. On multiple levels, the settlement was to build a closed entity. It maintains its own, closed net of infrastructure, has a well-established transit network and is connected to the urban center through a bus line (Nr. 43). The plan also takes into account the needs of working families with children.

The satellite photo shows the planned city of Kotez. The old buildings, with dark gray roof profiles, are easily distinguished by the later buildings, constructed with brick red roofs.





# Settlement Structure The Planned City of Kotez and Morphology





v.l.n.r.: 1.new residential structure, 2.peripheral road with connections to the center of Kotez, 3.market street in the center, 4.public park in the residential area, 5.small shops and bus-stop at the border of Kotez, 6. Crossing of tangential and radial road





**Informal Building Culture**



**Solidarity**

A sense of community also means joining together with neighbors in order to communally construct local streets.



**Convention**

The placement of the house on its property is determined the residents at will. The exact building regulations are often ignored.



**Flexibility**

To live in one's unfinished home goes without saying. This can go on from several months to years.



**Temporary Risk**

The necessity and desire to own a home often act as motivations for illegal transactions. So long as the building is not legalized, there is no danger of demolition.

**Informal Social Politics**  
Residents begin the construction of their homes without official building approval. The city shows a certain tolerance for this type of construction.



**Do-it-yourself**  
Self-organization during the building process. General safety precautions are seldom met during the building process. Practical objects serve foremost as a structural aids.



**Uniformity**  
The process of construction is similar for each resident. The exterior façade usually remains under construction. Similar methods of construction and building materials lead to a homogeneous architectural expression.



**Coded Order**  
There is an element of norm and order, yet the evidence of this is disguised by compromises and construction along a principal of optimization.







Those who could not find an apartment began to build of their own initiative. The construction was financed either out of their own pockets, or money were sought from public funds. Parcels of land were simply purchased from farmers, who sold their land cheaply as agricultural production no longer generated a high profit. This led to the transformation of land intended for agricultural production into building parcels- though, in most cases, the official registration of this change was ignored. This process transformed entire sectors of green, open space into concentrated residential areas covered in single-family homes. The process continued rapidly and in the 1980s, a high density of single-family houses was already to be found. However, the final settlement explosion of the northern periphery of Belgrade occurred in the 1990s, during the Balkan crisis. The initiation occurred in 1990/91 with the outbreak of the civil war, the final collapse of the socialist regime, and the influx of countless refugees from all ex-Yugoslavia into Belgrade.

### Land Cost

In general, the land costs on the left shore of the Danube are more affordable than in other areas of Belgrade, where similar, informal building activity takes place. This can be attributed, above all, to the proximity of the Danube, which is known throughout Europe to be a volatile river, which continually floods entire swathes of the land. The high ground water level makes it difficult, or even impossible to establish water lines and significantly reduces the quality of land for construction. Today, new vacuum-pump systems, which enable construction without deep excavation into the ground attempt to solve this problem. The cost of land rises along existing infrastructure corridors, which enable easy access to services. This is especially the case along the main traffic axes, on which large and mid-sized, foreign firms have settled. The city is in the process of expanding infrastructural services, and clearing and leveling land for such foreign investor projects. It is clear that these improvements aim to increase the quality of the territory surrounding the northern entrance to Belgrade- everyone speaks of the realization of this area's potential. As it is generally acknowledged that foreign interests are very lucrative for the city of Belgrade and one does not want to forgo such profits. This, in turn, explains the priority and determination with which such initiatives have been approached.



Most houses in Krnjaca were constructed without official building permits. In this respect, one deals with illegal buildings, whose existence is not warranted on a legal level and may therefore, in theory, be demolished at any time.

Additionally, the fact that the land is actually reserved for agricultural use, and not as building land, further weighs on the act of construction. In Krnjaca and the wild periphery of the planned city of Kotez, illegal construction is a normal case. Only a few buildings, found above all within the old part of Krnjaca, find themselves within the legal norm. In comparison to other illegal settlements in Belgrade, our study area shows the highest level of illegal buildings. The pressures on the state and municipal offices have continued to increase and the situation has threatened to spin out of control. This led the adapted Master Plan of 2002/2003, to postulate a legal proposal of "retroactive legalization", or the retroactive placement of an illegal built object into the official, cadastral plan. This however presents a drawn-out and tedious process, as in the cases of Kotez and Krnjaca there is not even an adequate, existing cadastral plan and if, then only in a rudimentary form. Infrastructure for the entire area also presents a substantial and at the same time complex issue, which is still opaque. Depending on the optimism of the residents themselves, this issue should be resolved within the next to years. The responsible municipal offices are also unclear of the continual development of new streets and therewith, new addresses, although each street in Serbia is owned by the state. Furthermore, the conditions of land ownership are in no way clear-cut, as one is not able to purchase the ownership of the land on which one intends to built, but instead, only the right to use that land. The situation is further ensnared with the

fact that land, in practice, is used for construction, while on a formal level it is intended only for agricultural use. Additionally, the situation cannot be clarified by locating the original owner, as the conditions of ownership were unclear during the postwar period in which the nationalizations process expanded the urban borders to encompass former green zones as space for new, urban development.

Already at the beginning of socialism, important steps were ignored or carried out incompletely, resulting in the early establishment of conditions favorable to an informal building culture. Today there is, at best, the desire to create a program, which would seek to define concrete strategies for the improvement of conditions on the left shore of the Danube. However, before this can occur, a comprehensive analysis of the current situation must be undertaken. That which was initiated during the 1970s, accelerated during the 1980s, and since the mid 1990s threatens to expand overboard, is not easy to stop. The city has long since recognized the problem and has attempted to integrate the phenomenon into its over-all system, which is perhaps the correct strategy. Yet care must still be taken not to work against one another, as next to the economically precarious situation and political instability, corruption and partisanship has also encouraged the informal building culture.



**„ No one stops you at the beginning. Everybody deals against the law so that everybody is guilty for such informal social politics “**

**Vladimir Milic, PhD, arch. Assistant Minister**

## What types of people live in Krnjaca and Kotez?

The outskirts of Belgrade Krnjaca and Kotez, which have grown together, are made up of a heterogeneous social stratification. The neighbors of families who have lived in the area for three generations are made up of former urban residents, immigrants from Ex-Yugoslavia and Western Europe, as well as gypsies. Among immigrants we count both those settlers who left their homes for political, economic or religious reasons, as well as families who have moved to the city from rural areas. Only in particular instances, for instance along a local street or traffic corridor, does one encounter homogeneous groups made up exclusively of refugees or immigrants of a particular nationality. The majority of the population continues to be made up of Serbs, as even those who lived extended periods within other parts of the former Yugoslavia identify themselves.

The only area, which can be called a gypsy-sector lies on the northwestern edge of the 'edge-city', directly behind the canal, and possesses a number of specific characteristics, which can be attributed to the nomadic lifestyle of this ethnic group. Though there is no specific name or term for this area- neither officially nor in slang. Similarly, possible prejudices were not evident to us. The development of such a settlement form can be attributed back to the lifestyle of the gypsies, who typically live among mid to large communities. The freely grazing animals along the opposing side of the street, give a plausible explanation for the position of their homes in close proximity to green space.

In comparison to other illegal, urban areas of Belgrade primarily residents of modest means live within the northern-border zone. Such a concentration may be attributed to the relatively low land costs of the area, as well as the availability of large green spaces, which are partitioned and sold as construction land. The explicit rural flair of this area is also a result of the resident populations, many of whom stem from rural areas and prefer to build their house with open, green space without forgoing the advantages of proximity to the city. Yet also on this level a balance exists: in almost regular intervals one can observe nouveau riche villas with annexed structures for small businesses or light industry. Often, these commercial structures are made up of small businesses, which deliver building and finishing material to the settlement area.



## Interview with a Protagonist

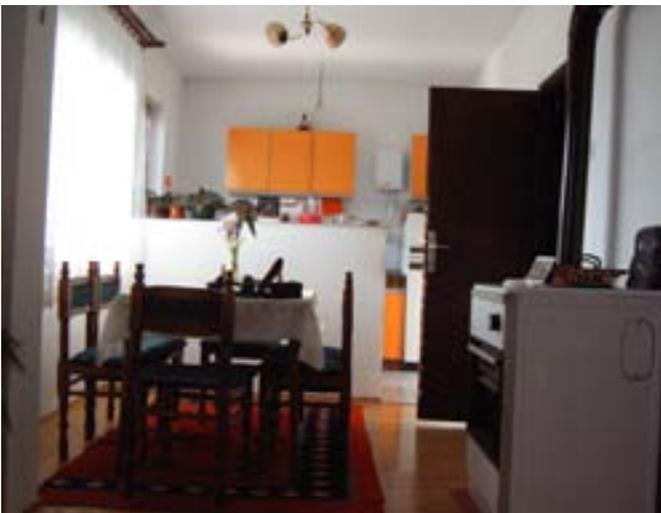
Marko, who is 25 years old, lives with his parents and his brother in Krnjaca. He tells us about construction in Krnjaca and Kotez:

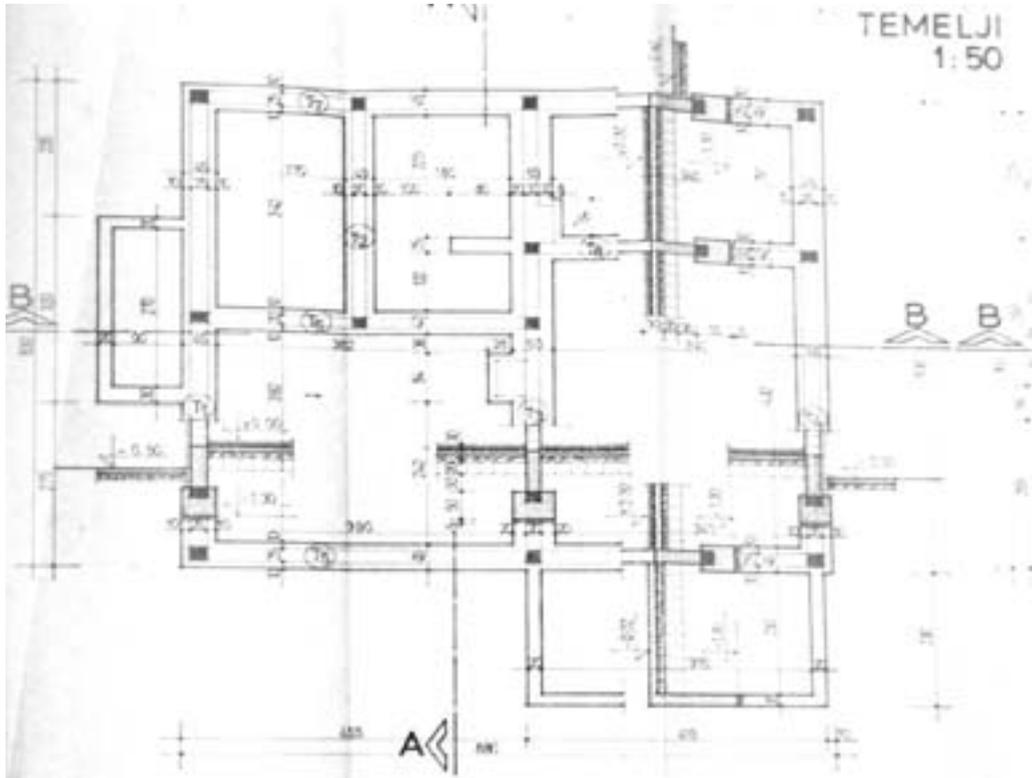
We began the construction of our house in the spring of 1992. First, my father purchased the parcel of land from a private owner. The area of the parcel measures approximately 10m x 20m, while the surface area of our house is approximately 9m x 8m. At that time, one paid, on average, the equivalent of 1'200 Euros for 10m<sup>2</sup> of land. Afterwards, my father purchased the plans to a typical house from an architect. If at all present, such plans are generally used to construct the primary structure of the building and provide a basis on which to determine the placement of important infrastructural installations such as the water lines, the position of the pit for the septic tank, and the primary structure of the building. Otherwise, the rooms are divided according to personal requirements. For instance, my mother therefore determined the main organization of the kitchen and living room. The plan must be looked upon as a conventional basis, which is passed on from neighbor to neighbor. Though cases also exist, in which a building is constructed without such guidelines.

In the summer of the same year, my father and a number of friends and additional workers built the foundation slab. Subsequently a building firm erected the primary structure and brick shell; the roof was constructed last. We moved in, in 1993, after the 'completion' of the ground floor, the completion of the upper floor, where the bedrooms are now located, followed two years later. I think that the entire house, including façade, will be finished within the next two to three years. The second floor bathroom and the stairwell should also be completed within the next months- we have already purchased the tiles, but we have not yet had a chance to mount them.

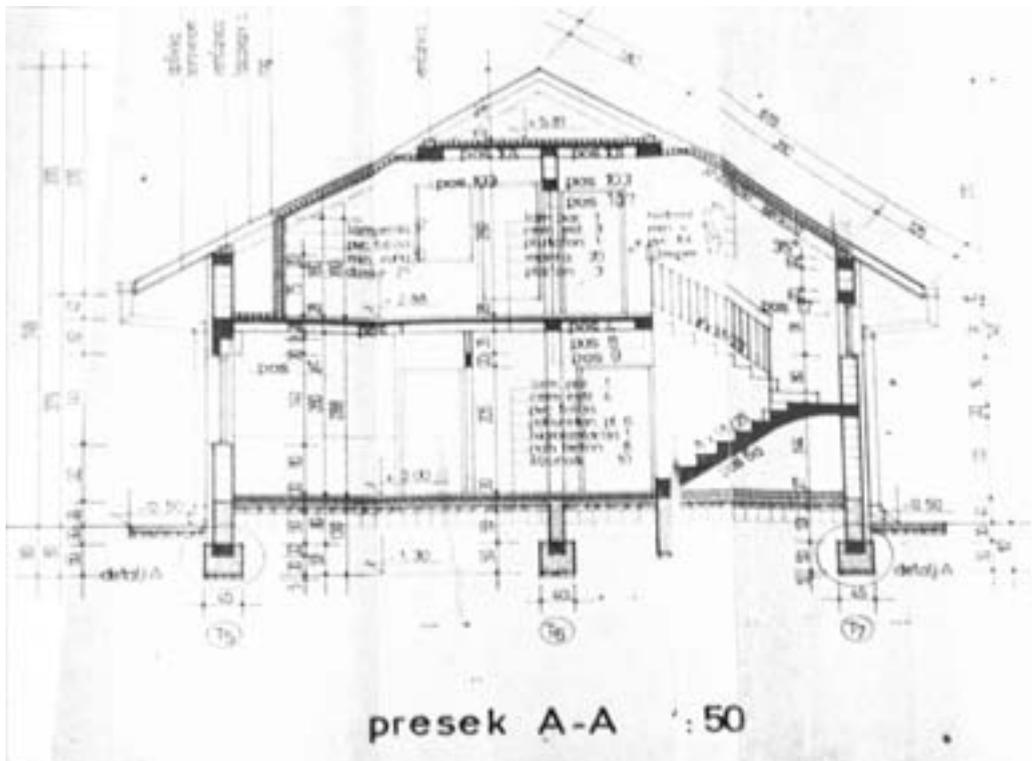
As you can see, most houses are constructed of brick; they usually have exterior insulation of Styrofoam and are then plastered. Yet this process is often drawn out by limited financial means. Interior walls are also constructed of brick and consist of layers of brick, insulation, and plaster. The exterior appearance of many homes is similar, as most people use the same, common materials in their construction. The interior is naturally very variable.

Pictures: from left to right: 1. Marko on the front door, 2. Marko's house and frontyard, 3. Power supply mounted besides the front door, 4. Kitchen, dining- and livingroom, 5. View from the upstairs bedroom, 6. the distance to the neighbours house.

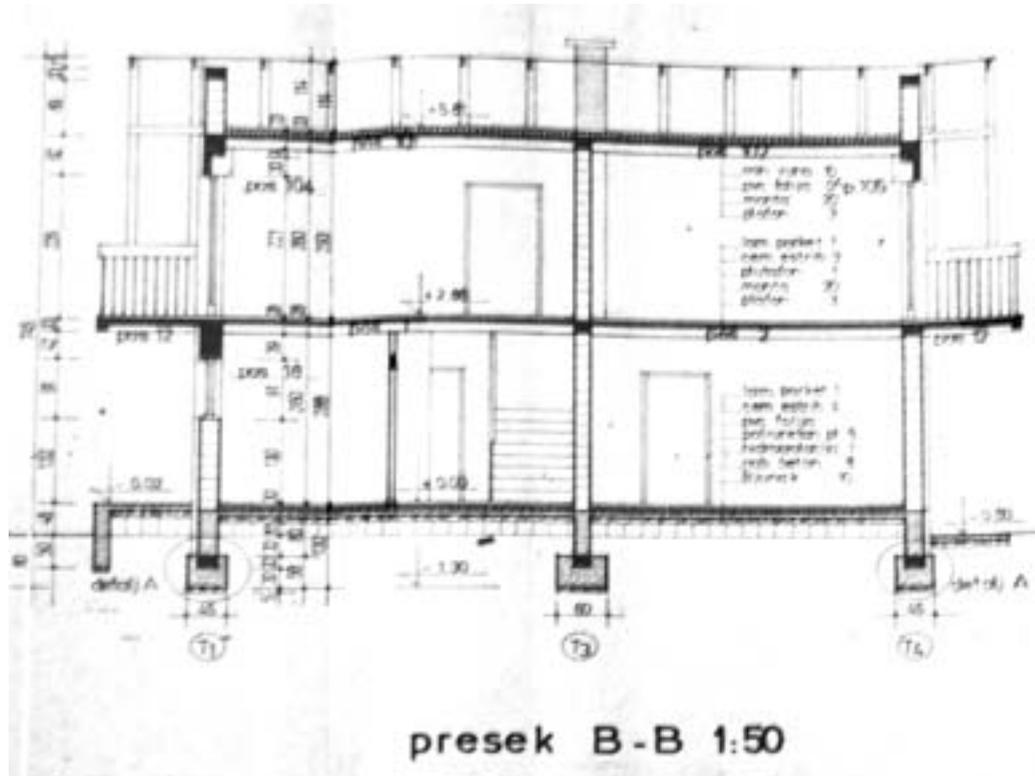




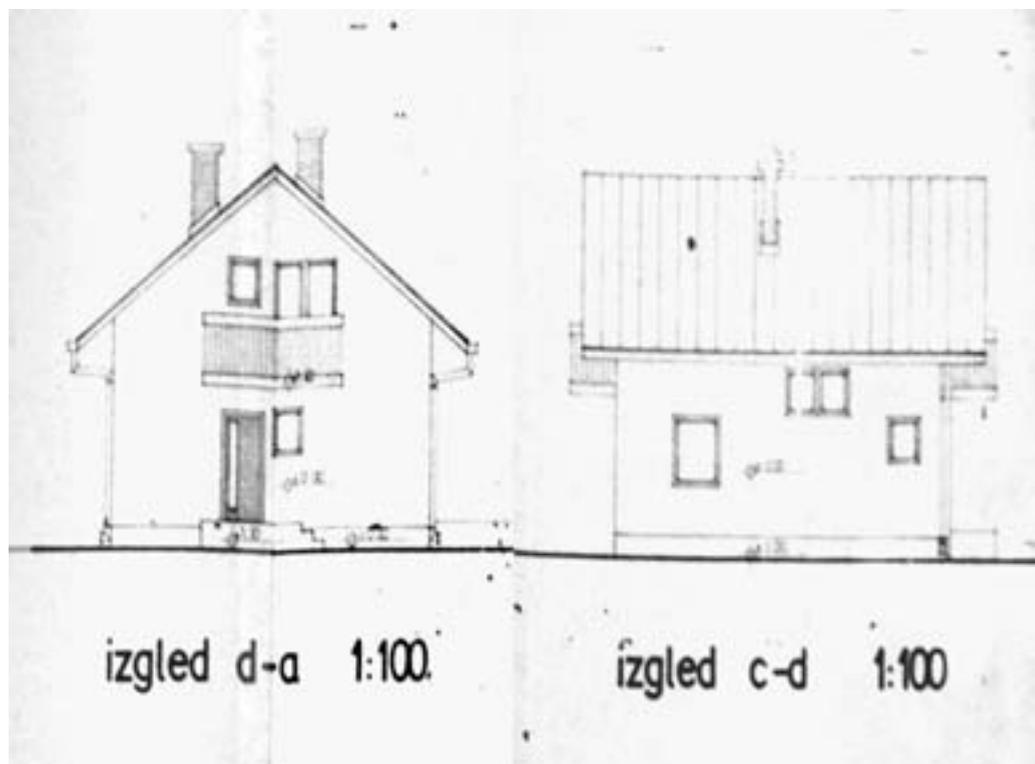
floor plan main level



section A-A



section B-B



elevations d-a and c-d

## A Cooperative Neighborhood- Solidarity in Social Politics

Statements from interviews in Krnjaca and Kotez:

“ The streets are usually build by homeowners and their neighbors. Yet municipal offices are responsible for the pavement of these streets, as they are officially responsible for the erection and maintenance of all infrastructures; also in the case of damages. In Serbia, all streets are owned by the state.”

“ I submitted a request for access to infrastructures to the municipal office of Palilula directly after I had begun construction. The costs were (in 2001): 650 Euros for running water, 1,500 Euros for electricity, and 400 Euros for access to telecommunications. As our street did not yet have a telephone pole, I had to have one erected myself, this cost an additional 400 Euros.”

“ In this area the water table lies above the ground level. When it rains, it is difficult to redirect the water into the Danube, for this reason we have canals- in order to discharge the water. “

“ Septic tanks are still not constructed according to the appropriate norms, which results in ecological and hygienic problems in times of strong precipitation. The lack of an adequate sewage removal system is a major problem for many inhabitants. The municipal authorities intend to deal with this problem within the next two years.”

“ When the septic tank is full, one simply calls the municipal authorities who bring a truck to empty it. In general, this occurs every six months.”

“My wife and I have lived in this apartment building for two years. The size of our apartment is 45m<sup>2</sup>. The building is privately owned, by a person who lives somewhere in the city. The owner spent several years abroad and returned with money with which he was able to commission the construction of the building. We do not know what he does or what his profession is- Mafia.”

“ Though there are still some inspectors who take care that houses are constructed according to the legal regulations, they often turn a blind eye, concentrating themselves on more important matters.”

“ I now have half of the necessary papers for the legalization of my house. They await review in the municipal offices of Palilula.”





## Purchase of Land

From:

- Farmers
- Landowners
- Building firms
- Investors
- Speculators



## Properties

Once field, now construction sites  
Soon parcels



Fenced in fields  
When does the next step follow?



## Informal Building Culture



**Foundation Slab**  
After the excavation for the septic tank, the foundation slab is constructed  
Of: reinforced concrete  
By: private building firm



**Installations**  
Early in construction, sanitary plumbing must be installed- convention as standard.



**Plan-types**  
The form of plans can vary depending on requirements. The differing wishes of residents are expressed in their houses.

### Skeleton

Professionals from private building firms, as well as acquaintances of the family erect the primary structure- of reinforced concrete.



### Masonry

Relatives and friends subsequently help erect the walls- of brick.



The ground floor is now practically ready to be inhabited.



## Informal Building Culture



Telecommunication  
Often, at the beginning, electricity is tapped.



The primary structure enables a flexible partition of the interior plan.



Completion Phase

The balcony balustrade will not be erected for a while. Important are doors and windows.

Primary Plaster on the Ground Floor

The upper floor is completed when the children move in.



The pitched roof is missing- while the house is already inhabited, the exterior façade is insulated in stages.



Now only the exterior paint or cladding material is missing for the completion of the façade.



## Living in Unfinished Houses – Finally a Roof Above Ones Head

In principal, a house is ready for habitation once the roof has been completed. Usually the future residents of a building even move in while the house is still under construction. Once the ground floor has been erected, residents furnish and move into the habitable rooms. It is therefore not uncommon for a family to spend several seasons in a house, which still resembles a construction site. Due to financial reasons, the exterior insulation and the final façade paint of a structure may be postponed for long periods. In this manner, the construction of a building has become an intimate experience and perhaps also a tradition, which is passed on.



The whole family working on the construction of their home on a Saturday afternoon.



After three days, the family completes the upper floor.



On the next Saturday, the wooden casing of the roof structure is visible. The ground floor is already inhabited. The window with the curtains and flowerpot on the window ledge shows that the family has already furnished the space. The necessary infrastructure is already installed.



Within the settlement it is evident that nearly all houses possess the same structure and are constructed of the same building materials: concrete frame construction with walls of brick masonry. Though a number of large and small building supply stores are located along the main street of Zrnjaniski and in proximity to the harbor area on the other side of the Danube, the inventory of these stores is limited to a number of particular building materials which are stocked in great quantity. One can also discern that the unfinished single-family homes already inhabited by their future residents, which look more or less similar in appearance, are often constructed out of similar or even the same building parts such as window frames or doors. Despite versatile floor plans, the residential area therefore possesses a certain uniformity.

The picture below, to the right, shows a storeowner from Kotex, who sells primarily products such as clinker, bricks, tiles and insulation material to clients of Kotex and Krnjaca.





# Informal Building Culture



# DDR RADAKOVIC

		011 3319031		065 3319031	
			Beocin		
<b>CEMENT</b>	Hoicim	340,00	od 120dž.	350,00	<b>BLOK</b> Trudbenik 30,00
	(4e)	350,00	od 50dž	360,00	pregradni 29,00
		370,00	do 50dž	380,00	ispuna 14 32,00
					<b>BLOK</b> batajnica 29,00
<b>KREČ</b>	Jelen do	170,00	od 100dž		<b>BLOK</b> dobri do 30,00
	(9p)	180,00	od 50dž		<b>CIGLA</b> puna <b>BRICK</b> 9,00
		190,00	od 50dž		šuplja 13,00
					<b>BETONSKI BLOK 12</b> 30,00
<b>CREP</b>	For the Roof				20 40,00
272 Kikinda Mala (400)	(20cents)	28,00			25 50,00
333 Kikinda Velika (390)		29,00			
997 Kikinda Biber (320)		29,00			<b>TERMO BLOK</b> 60*20*20
993 Kikinda Holan. (288)		29,00			Fco kupac 40paleta 4700 /m3
002 Kikinda Klasik (356)		30,00			Fco kupac 14paleta 4900 /m3
					lepak 25/1 (18kg-m3) 27,00
<b>CREP</b>	Bečej				<b>TERMO BLOK</b> 60*12*20
	M 222	29,00			40 p 4900 /m3
	IDEAL 222	30,00			14 p 5100 /m3
<b>ŽLJEBNJAK</b>		110,00			<b>FERT GR.</b> do 3,6 <b>20157</b> 149,00
<b>ZAVRŠNI</b>		100,00			r8 do 4,2 185,00
					r10 do 4,7 195,00
<b>PESAK</b>	0 1m3	(5e) 450,00			r12 do 5,2 205,00
	1. 1m3	1.400,00			2r10 do 5,7 235,00
<b>ŠLJUNAK</b>	1m3	(9e) 800,00			2r12 do 6,2 275,00
<b>ARMATURA</b>			din/kg		<b>ARMATurna MREŽA</b>
Glatka			53,50		4 1.100,00 kom
Rebrasta			54,50		5 1.550,00 kom
Uzengije	Stirrap cementu		54,50		6 2.200,00 kom
Vezivanje			8,00		8 3.900,00 kom
Savijanje			2,00		10 6.100,00 kom
		topolove	camove		<b>TERPAPIR</b> for isolation 470,00
<b>DASKE</b>	BORD	11.500,00	15.000,00		<b>KONDOR 3</b> for isolation 1.200,00
<b>GREDE</b>	20157	12.500,00	16.000,00		<b>KONDOR 4</b> 1.440,00
<b>FOSNE</b>		12.500,00	17.000,00		<b>BITULIT</b> 99,00
<b>LETVE</b>		24,00	30,00		<b>BITUMEN</b> 44,00
<b>ŠTAFLE</b>		12.500,00	17.000,00		
					<b>MREŽICA</b> net 38,00m2
					<b>LEPAK</b> glue 15,00/kg
					<b>BAVALIT</b> 17,00/kg
<b>STIROPOR</b>			<b>KOMPLET</b>		<b>GLETOL</b> 20,00/kg
5cm/12 gr		130,00m2	300,00		<b>POLUDISPERZIJA</b> for Enk 28,00/kg
5cm /17gr		185,00m2	340,00		<b>STIRODUR</b> isolation under floor
5cm /20gr		240,00m2	390,00		F 5cm 485,00/m2
Falc 5cm 15/17gr		205,00m2	350,00		F 3cm 292,00/m2
Falc 5cm 17/20gr		265,00m2	410,00		2 cm 195,00/m2
					<b>CENE VAZE ZA KUPOVINU NA PALETU</b>

Pricelist of construction materials





Synthesis

On the basis of a number of aspects, we have attempted to provide an overall view of the form of these informal building processes. The observations occur on different levels.

The cumulative expression of this peripheral zone rests, on the one hand, on a spontaneous development resulting from informal transactions, and otherwise on the personal aspiration towards regularity or uniformity.

Every single house is integrated into and assimilates with its surroundings. The maintenance of regular building setbacks and the orientation of the narrow façade of a building towards the main street, show that despite partly illegal transactions, a more or less regular urban entity emerges.

In light of the circulation of design plans to third persons and the multiple replication of the same, standard houses selected from catalogues, the structures possess a similar architectural language. Still, one encounters the indication of individual forms of expression and ideal conceptions, for instance the balcony balustrades, which recall South America- the imprint of the beloved Tele-novelas.

This type of informal building activity is also found in the planned portion of Kotez- this type of urban transformation may be understood not only as an expansion, but also as a appropriation of old structures.

Based on the existing infrastructure, individual mergers and partial intersections arise, which may no longer be ascribed to their origin.

Due to the way in which this urban development may be described through a model of a tree-like structure, and considering the evidence of a continual progression of informal construction, the process develops a form of individual momentum. The opposing, formal tendencies of construction in turn, steer this momentum to a more controlled direction. These developments therefore rest not on one, sole criteria, but on a number of different factors, which influence and impact the process of urbanization.



## One Form of Symbiosis

The adjoining illustration again depicts the eight aspects as elements of a cohesive and closed whole. The classification of these components in a regular polygon (net) is to symbolize the integration of informal processes in an originally predetermined spatial plan. Apparent at the same time is that these forces alone may not directly be classified as informal or illegal. Only in their collaboration and in respect to particular transactions and phenomena do they obtain the characterization of "illegal". Additionally, our diagram demonstrates that even in its early stages, the half-legal building practice represented a form of cooperation between initiator and legal official. For this reason, we do not consider the common expression of "illegal settlement" as entirely appropriate, as it imparts a somewhat distorted image of a "conventional" situation.

## Synthesis

Since the 1990s, the northern periphery of Belgrade, with the suburbs of Kotex and Krnjaca, has rapidly developed into a spatial and complex urban form. Informal building processes and state run master planning exist in a form of creative symbiosis. The dream of an idyllic single-family home within green, open space, is realized through personal initiative and imprinted by the origin, worldview, and the vision of each individual. The balance between self-organization and administrative planning has developed into a specific form of communal, resident initiative. In a partly legal realm, where a rule acts more as a convention, an ambiguous principle of order has emerged. In this place, the feat of planning seems entirely- or to a large part- to come from the heavens.

solidarity



flexibility



informal social-policy



SYMBIOSIS

do-it-yourself



convention



temporary risk



regularity



coded structure

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