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Global, Regional and Local Aspects of Spatial Planning in Central Europe

Study Tour

6th - 13th of April 2010

Šećerov Velimir (ed.)

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Global, Regional and Local Aspects of Spatial Planning in Central Europe
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Editorial Director: Velimir Šećerov
Editorial Assistant: Werner Kvarda
Milan Radović
Vladan Mošić

Cover Design and Images: Milan Radović
Vladan Mošić

ACADEMIA DANUBIANA

c/o University of Natural Resources and
Applied Life Sciences Vienna- BOKU
Institute of Soil Science
Peter-Jordan Straße 82
A - 1180 - Vienna

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PREFACE

Stojkov B.
Government of Republic Serbia, Republic agency for Spatial Planning

The April 2010 was month to remember for students from the department of spatial planning at the Faculty of Geography, University of Belgrade. The group of 19 students and 5 professors and assistants visited Austria, Slovakia and Czech Republic to see, to listen and to discuss on issues of spatial development, nature and environment protection, cultural landscapes and other issues. The key role in organizing the visit, discussions, lectures and in enthusiasm rising was with Prof. Dr Werner Kvarda, the man who will be remembered at the Belgrade University as one who inspired generations of its students with sustainable development ideas, with organic planning approach, the Nature and culture respecting.

But it was not this generation only. In the last decade students from the same department have visited Austria and its lands, Lower Austria, Upper Austria, Burgenland, Styria and City of Vienna, and met number of kind people, professors, mayors, experts from regional and local offices, other students. One of impressive visits was in 2008., when Prof.Dr Wilfried Schoenbaeck from Technical University in Vienna organized whole week for lectures, presentations and discussions at the University, contributing to the program of additional but essential education of students from Belgrade.

What is the substantial idea in these weekly seminars that took place five times from 2004 till 2010? The basic one is to meet different people and diverse rural and urban regions in a country that has so much in common with Serbia, and to see how development problems are met and solved there. The next one is to widen their knowledge in new European ideology and fit Serbian ideas in that context. The last but not the least is to raise their interest in very specific approach to the planning methodology with such experts as Prof. Kvarda, Prof. Schoenbaeck, Dr. Kurt Puchinger, Prof. Maros Finka and Dr. Matej Jasso at the Bratislava University and many others are. The deep trace left after any of these five visits is something that will substantially change approach to planning studies and, definitely, to the future planning practice of students who had opportunity to participate. The important point is also professional and friendly connections established among professors and assistants that will be crucial for their professional and educational careers.

Historic and cultural links between Austria and Serbia are long and strong. The river Danube is something that inevitably pursues these links. Nowadays, the river Danube is progressively loosing its role of a border, evidently becoming a sort of bridge between Danubian nations. The capital cities Vienna, Bratislava, Budapest and Belgrade are major columns of the bridge. Their universities and their students are key elements for the future system where sustainable development will be treated as their common concern, where natural and cultural divesity will be understood as an advantage and not obstacle, and where network of positive and friendly experts could highly contribute to the better future. ACADEMIA DANUBIANA, as an institution where experts understanding the role of the Danube meet together, is an idea of Prof. Kvarda with my participation that could enhance the practicing and functioning of that role.

The weekly seminar around Austrian, Slovakian and Czech regions, with Prof. Werner Kvarda and other experts, was something that proofs the benefit of the idea of his and my initiative in 2004., with hope for the next steps followed by younger professors and assistants on both sides.

PREFACE OF EDITOR

Šećerov V.
University of Belgrade, Faculty of Geography, Institute for Spatial Planning

Continuing the successful collaboration with BOKU University in Vienna and Academia-Danubiana Association, on 6th-14th April 2010 the fifth excursion of students from the Department of Spatial Planning at the Faculty of Geography, University of Belgrade was carried out in Austria, Slovakia and Czech Republic. The group consisted of five teachers and 19 undergraduate and graduate students.

This issue of the journal is devoted to this event. As a result of the field work, students wrote the papers that cover topics: environment and natural protect, infrastructure and GIS, renewable energy, strategic planning, tourism and cultural heritage, rural development and village renewal. The material in front of you is a compilation of texts, opinions and papers from the students' perspective. It's also an attempt of comparison of experiences in Austria, Slovakia and the Czech Republic with the current planning practice in Serbia. Development problems that the regions of Austria were facing and how to overcome them can be adapted to serve as the foundation for the promotion of development scenarios of similar parts in Serbia. The special quality is an integral concept of excursion, based on the initial idea of viewing physical, environmental, economic and social development aspects of regions.

Similar to previous excursions, students were divided into groups according to their preferences, in order to obtain a more analytical approach to the matter, resulting with a comprehensive material, made up of several development issues. Ass. MSc. Danijela Obradovic led a group for *environment and protected natural resources*, Ass. MSc. Marija Nevenić - group for *strategic spatial and urban planning*, Ass. MSc. Aleksandar Djordjevic and BSc. Miroslav Maric – *infrastructure and GIS* and Ass. Prof. Dr. Velimir Šećerov - *tourism development, rural development and cultural and historical heritage*. The coordinator of the whole event and our host was Prof. Dr. Werner Kvarda from BOKU University in Vienna, who has been a friend of Faculty of Geography for many years. His ideas, comments, suggestions and *something to think about* guided our students through their study tour. Prof. Dr. Borislav Stojkov, the current director of the Republic Agency for Spatial Planning and longtime professor at the Faculty of Geography, was also with the group and made a significant contribution to a better understanding of development issues, the strategic orientation of Austria, the Czech Republic and Slovakia and the application of positive European planning practice in Serbia.

The program was, as usual, very intense. On the first day, we visited Dr. Robert Lukesch's environmentally sustainable farm, a successful combination of modern and traditional, economically efficient and natural, urban and rural, which made a great impression on the entire group followed by a very intensive discussion. The afternoon continued with the visit to the city of Güssing, where students were welcome and addressed by the Mayor of Güssing Mr. Peter Vadasz, the creator of the idea of energy independence settlement. His lecture was about *Güssing model* - the strategy of decentralised, local energy production with all available renewable resources in a region, which caused an explosive economic growth while conserving non-renewable energy, raised the overall life standard of the population and achieved almost complete energy independence in relation to the conventional global corporations. This successful example has demonstrated several positive sides of planning: the motivation of the local population, realistic assessment of their own capacities, administrative inventiveness, marketing etc, supported by European structural funds.

On the second day we had the opportunity to visit European University Center for Peace Studies (EPU) located in the castle of Stadtschlaining. In the past few years, the newly established University managed to bring together students of master and basic studies from several countries (including Serbia). That was a great opportunity to exchange experiences on the study, conditions and results with our host Ms. Alexandra Elbling. Particularly interesting was the visit to the European Peace Museum in Stadtschlaining, located in a former synagogue, where we saw one of the largest libraries in Europe, containing thousands of books about peace and politics. In the evening we arrived in Neusiedl am See in Burgenland, where we visited the National park Neusiedler See.

Traditionally hospitable residents and government of this city made our stay more than pleasant. Located between Bratislava and Vienna, Neusiedl am See was a good choice to an easy access to Slovakia, where we had the special opportunity to hear lectures by the City architect, Prof. Dr. Stefan Slachta and Dr. Matej Jasso from the Institute of Management - Department of Spatial Planning, Slovak University of Technology. This rare occasion was more than enough to show the students the transformation of the city in the last 20 years, the importance of connecting Vienna and Bratislava (Twin City) and ideas for the formation of a large crossborder region - CENTROPE which includes parts of Austria, Slovakia, the Czech Republic and Hungary. They also presented the ambitious Master Plan of Bratislava City 2020. with aspirations of becoming a significant factor in the multimodal transport hub in Europe.

After the visit to Slovakia the group went to the Czech Republic. The largest park areas in Europe that include two castles, Lednice and Valtice, once owned by the family of Lichtenstein, assured the students of the importance of cultural – natural landscapes in the overall development of the entire area along the border with Austria. Similarly, on the fifth day of our study tour we visited the Melk Abbey, the Benedictine shrine of paramount importance for the spiritual and cultural development of

Austria. A special privilege for us was the admission to the Magistrate of Vienna, where the group had the opportunity to hear the experiences, plans and ideas for the implementation of major development projects by Dr. Kurt Puchinger, Director of the Vienna City Council of Urban Planning, Prof. Dr. Wilfried Schönbäck and Prof. Dr. Rudolf Giffinger from TUW. After the excellent presentations and discussions in the afternoon, the official part of the excursion was over. As it usually happens, unplanned and completely spontaneous, the group of teachers had the honour to visit the Austrian Parliament and the Second President Mr. Neubgebauer. At the meeting we discussed the importance of the state and its role in the planning process, where both sides exchanged experiences.

The whole event ended on the 14.04.2010. with unique impressions. We'd like to express an enormous gratitude to Prof. Dr. Werner Kvarda and all representatives of governments, universities and other institutions, hoping that our cooperation will continue as before, and that new generations of students will have the same opportunity to go through similar experiences.

This abridged version of the excursion may enable those who were not with us to experience parts described and recognize the importance of sharing knowledge, practices and science, which took place in April 2010 in Austria.

INTRODUCTION

Šećerov V.; Djordjević, A.; Nevenić. M.; Obradović - Arsić. D.
University of Belgrade, Faculty of Geography, Institute for Spatial Planning
Marić, M.
The Highway Instiute, Belgrade

The April 2010. was perfect timing to enjoy Austria's roads by day and relax in an Austria hostels by night together with our dear Prof. Werner Kvarda! We had opportunity to explore Austria's variety, the diverse landscapes, ranging from high alpine mountain landscapes in the West to the flat areas in the East. Castles, museums, monasteries, historical places and cultural sites, abbeys, quaint villages, beautiful towns, and some interesting picturesque cities made our journey through Austria unforgettable. The Danube, itself, always pleasing and often lovely, is omnipresent. Furthermore we had the possibility to surrender ourselves with culinary pleasures and we didn't miss opportunity to degustate Austrian Wines. Visits to Slovakia and Czech Republic has to be mentioned also.

Working in a group of 19 students and 5 teachers gave us an opportunity to learn, understand and listen to each other ideas. The group of 19 students was separate in four groups/topics: environment and natural protect – in charge by Danijela Obradović-Arsić, infrastructure and GIS - in charge by Aleksandar Djordjević and Miroslav Marić, strategic planning in charge by Marija Nevenić, and cultural heritage, rural development and village renewal - in charge by Velimir Šećerov. Supported by a more experienced generation (Prof. Borislav Stojkov and Prof. Werner Kvarda), students showed a highest professional way of discipline in their work and good cooperation skills in dialogue and listening. Events, texts and impressions were given in this journal chronologically and by the topics processed.

The main task of the group for *Environment and protected natural resources* was to analyze different aspects of environment and natural protection and development in a sustainable way. Students had an opportunity to see how ecological agriculture really functions through the example of the Dr. Robert Lukesch's environmentally sustainable farm. This farm is a successful combination of modern and traditional production, economically efficient but still natural. Also, students visited the city of Güssing, well-known as an environmental friendly energy independent settlement, where they learned about the *Güssing model* – the strategy of decentralised, local energy production with all available renewable resources in a region.

The place of special interest for this group was the National park Neusiedler See. The visit to this steppe national park gave the opportunity to both students and teachers to see how the local population is integrated into all decision making processes to preserve the valuable ecosystems. This is an excellent example of combination of nature protection and benefits for the locals, not only trough the offers of bird watching and similar allowed visits to the park, but also trough the vineyard activities and all kinds of eco-tourism (sailing, horse riding, etc.).

This excursion gave the opportunity to our students to learn about the sustainable way of development of former poor regions in Austria, and helped them to improove the way of thinking, to get some new ideas that can develope and apply in some regions with similar problems in Serbia. The experiences from this excursion, especially in the field of integrated spatial planning and renewable energy systems, will be of great help to our students – future planning experts in their aims to preserve a healthy environment, parallel with solving urgent social and economical problems.

Since Austria is not just the geographical heart of the New Europe – it's also assuming a central position in the eyes of many international concerns as a distribution center and logistical hub between East and West – the group for *Infrastructure and GIS* had a very challenging task to collect all relevant information and to compare it with Serbian actual situation. This was the main task for the group and data, analyses and results are provided in this paper.

The requirements for efficient and cost-effective shipping of goods are a high-performance infrastructure, reliable transportation services and strategic location. Austria offers precisely these advantages – and more. In international comparisons, the Alpine Republic receives top marks across the board as a logistical base.

Road conditions in Austria are generally excellent; during the winter, however, roads in alpine areas may become dangerous due to snowfall, ice, or avalanches. Some mountain roads may be closed for extended periods and tire chains are often required. Traffic information and road conditions are broadcast on the English-language channel. Austrian autobahns have a maximum speed limit of 130 km/hr, although drivers often drive much faster and pass aggressively.

Apart from the buildout of the nation's infrastructure, Austrian firms can also benefit from broad access to the international data highway. Compared to other EU member states, Austria has invested by far the most in expanding its telecommunications infrastructure. Companies in Austria can take advantage of state-of-the-art, high-capacity networks.

For decades, the telecommunications industry was a monopoly in Austria, with the state-owned Post and Telecom Austria (PTA) being the only national supplier of networks and telecommunication services. Because of EU liberalization directives, the government enforced legislation to open the telecom and energy sectors to competition. The Aus-

trian telecommunications sector now exhibits much liberalization, though high interconnection fees are still a problem. Austria has a highly developed telecommunications system with 4 million telephones, 27 radio stations, 47 television stations, and 4 satellites.

A distinctive feature of the Austrian energy sector is its diversified sources of supply. In 2000, the total primary energy supply included liquid fuels (38 percent), natural gas (24 percent), hydropower (13 percent), other renewable resources (13 percent) and coal (12 percent). Nuclear power is legally banned, following a referendum on the subject in 1978. The renewable resources share in Austria's energy supply increased from 16 percent in 1973 to 26 percent in 2000. The government plans to completely liberalize the electricity market by 2003. Preparations are also under way to open up the natural gas market.

Bike tour's popularity lies in a great concentration of diverse views and tourist sites that bring new variety on each day of a ride; and the presence of wide bike paths (or very minor roads) that keep cyclists apart from traffic, usually right alongside the river. As a plus, in the case of bad weather, river steamers provide a painless way to continue a journey. Bicycling road signs, pointing to the main routes, to variants, to nearby sights, and to hotels, usually clearly indicate your route. Of course full electronic support in guides and information as well as perfectly distributed signs contributes to overall touristic attractiveness.

The group for *Strategic planning and urban planning* had a very challenging task. In order to comprehend the past and recent trends in the area mentioned, that is what are metropolitan regions, what is strategic planning in its core and many other related topics, as well as to compare Austrian regional planning practice, metropolitan governing, and regional integration processes with the Serbian ones, this group of students tried to perceive, from the planner`s point of view, the current situation in the Austria, Slovakia and Check Republic and the main problems that are these countries experiencing today. Finally, the students elaborated some ideas for solving these problems. What did we all learn?

Strategic planning is becoming more and more a very important segment in regional planning and it seen as one of the basic frameworks of today's European regional development policies. Metropolitan regions, as one of the major carriers of strategic planning are the key instrument of the today's regional integration processes. They are understood as highly urbanized regions whose role in economic (production, consumption, traffic, services, ext.) and in socio cultural sense goes beyond national scales**.** Together with national states, metropolitan regions are, in the global distribution of power among East and West, the key instruments for establishing higher competitiveness level of European continent. Decreasing internal and external regional disparities of South East but as well Central and Eastern Europe ask for some policies oriented to polycentrism, decentralization and sustainable activating underused or misused territorial capital.

One of the important steps for strengthening/reinforcing territorial capital is networking of urban centers (growth poles) and networking regions, such us Belgrade, Bratislava, Vienna… That does not mean the reinforcing individual urban centers but reinforcing cities, connected to functionally organized networks formed on trustful cooperation, relationship and advancing interests. Since the cities are nowadays too weak and they cannot accomplish much by themselves in order to increase the level of competitiveness, European initiatives are the ones who support the linking of cities and their networking, there where functional needs and reasons exists and there where exists certain interest, and there where networking practically increase territorial capital of these mutually connected regions.

The richness of our society is as great as it protects and cherishes its cultural heritage through history, centuries of hard and patiently built by our ancestors. One of the brightest examples of concerns about cultural heritage, of course Austria. Country great and rich history and tradition with fantastic city-museums, beautiful villages with beautiful landscapes, castles, churches and monasteries, palaces, big names who have commissioned his work, not just Austria, but also the whole world. As the cultural property ideally be linked into a unique tourist offer, we also see the example of Austria. In this way the cultural heritage of its great appeal that attracts large numbers of visitors, revenues and development activities in space, then hire people and raises living standards. In Austria we have seen a typical example of highly developed tourism organization with fantastic effects.

The last but not the least that has to be said is that this study field log ended too early for many of the participants. We are all still admiring the wonderful atmosphere during the whole week and an ever lasting energy of the dearest Prof. Kvarda. With his enthusiastic way of thinking and charming personality he made closer to our students the model of learning and sustainable development, regional planning approach, integrated land utilization, ecological design and many more. We hope that this kind of cooperation and exchanging ides will continue in the future.
Because of the limitation of introductory word, we can only invite you to enjoy reading this book.

IDEA OF THE EXCURSION

Kvarda, W.

University of Natural Resources and Applied Life Sciences, Vienna

The very idea of the excursion was to ask the question: what we learn from former poor regions along the iron curtain in Austria with a lot of problems in relation to other regions, for instance on the Balkans.
In Spatial Planning the idea was to negotiate different positions of the planning directorates in both cities of Bratislava and Vienna to visualize spatial development visions for proper infrastructure, economic competitiveness and a combined integrative approach for natural and cultural heritage.
From an ecological point of view we were visiting sustainable models of integrated spatial planning and renewable energy systems
But a basic idea during the excursion was to explain our common history from Austria and Serbia related chronologically to every period of human history.

Europe has become
a giant freewheeling experimental laboratory
for rethinking the human condition and
reconfiguring human institutions in the global era.

Jeremy Rifkin

Europeans are in the midst of a profound debate about **our** vision of the future. Romano Prodi, former President of the European Commission was commenting Jeremy Rifkins´ book [9], when he said: "*The European Dream*" mirrors the European soul, providing us with a clear reflection of who we are and what we stand for and aspire in the new Europe." The European Dream emphasizes community relationships over individual autonomy, cultural diversity over assimilation, quality of life over the accumulation of wealth, sustainable development over unlimited material growth, **deep play over unrelenting toil**, universal human rights and the rights of nature over poverty rights, and global cooperation over the unilateral exercise of power.

Since a few years the University of Natural Resources and Applied Life Sciences in Vienna is cooperating with Prof. Borislav Stojkov and Ass. Prof. Velimir Secerov with their colleagues from the Institute of Spatial Planning at the University of Belgrade, organising special excursions for getting acquainted with innovative examples and first strategy steps for sustainable development in Austria. Since Serbia is a potential candidate country for member ship into the European Union we deeply believe like Tim Judah is mentioning that ´Serbia matters´, because more than ever the EU needs consolidated democracy, security and stability in every part of the Balkans. [4]

The goal of the excursion was to visit and discuss economic, social and ecological projects mainly in former problematic border regions in Styria, the Burgenland - the region of Fertö-Neusiedlersee and Eastern Lower Austria. Thirty, forty years ago, there was a lot of unemployment, migration and no hope especially for the younger generation. Thereby we were showing different approaches and solutions about extraordinary innovative concepts done within the past, which were increasing quality of life and local working conditions in harmony with natural conditions. The very idea was to ask the question: what can we learn from former poor regions along the iron curtain in Austria with a lot of problems, in relation to other regions for instance on the Balkans.

SPATIAL PLANNING and AUSTRIAN STRATEGY FOR SUSTAINABLE DEVELOPMENT

At the very beginning we started our tour in Hirzenriegel in the south of Styria to meet Robert Lukesch. He is living and working in an old farm house and collaborating as an OEAR [1] consultant in the field of regional development linking projects carried out in Austria, Europe and world-wide. Lukesch is a representative of a new generation of planners strengthening sustainable products and services, promoting innovative structures for a sustainable life-style and shaping projects for Responsible use of Land and Regional Development.

The aim of the European Region CENTROPE in the heart of Europe is to establish a twin city concept between Bratislava and Vienna for cooperation within economy, infrastructure, education and cultural issues. We were discussing this new economic region in the city planning department of Bratislava and Vienna. The idea was to negotiate different positions of the planning directorate in both cities to visualize spatial development visions for proper infrastructure, economic competitiveness and a combined integrative approach for natural and cultural heritage.

RENEWABLE ENERGY SYSTEMS

The crisis of our time is not about financial or economic bankruptcy. The real crisis of our time is about an intellectual bankruptcy, says Otto Scharmer from the MIT.[2] For economic purposes we need to change the way we are thinking, like ´wicked problems´, ones´ that cannot be resolved with the same thinking that created them. [10]
The idea was to show a new way of thinking in the region of Güssing. The so-called **„Güssing Model"** is a strategy of a de-centralised, local energy production with all available renewable resources in an ongoing learning region. This model came into being so to speak out of necessity for being autonomous and is the quintessence of what has been happening in Güssing with decisive involvement of the Austrian Center for Renewable Energy

[1] OEAR: Austrian Association for Regional Development. http://www.oear.at/
[2] Presencing Institute. www.presencing.com

and the local population. Since every region has certain resources (forests) in different measures for energy supply, the model can serve as an example for many communities. To manage our continually changing activities in land use planning, new ´local self governing styles´ may support the dialogue between all the players, in an ongoing process to create effective governance toward a ´**learning region**´ democratically by everyone being affected.

ECOLOGY AND NATURE PROTECTION

The idea in ecology was to show sustainable models of **integrated spatial planning**, where Nature conservation plays in an orchestra together with other land-users in the fields of forestry, agriculture, tourism and industry (handicraft), with the aim of mutual benefit.

The Nationalpark Neusiedler See ranks among the most fascinating natural areas of Europe: the open water and reed-covered zones of Lake Neusiedl, the meadows close to the water, the pasture land, and the saline and periodically dry pools are the habitats that this park has to offer. This steppe national park is an extraordinary example to see how the local population is integrated into all decision making processes to preserve the cultural landscape. Agricultural land utilization, particularly vineyard activities has created and maintained a large part of the biodiversity of the pasture land. All kinds of eco-tourism (sailing, horse riding, etc.) in the cultural landscape are negotiated with the local population in cooperation with the directorate of the national park and the regional and local government.

RELATION OF THE HISTORY OF AUSTRIA AND SERBIA

The origins of the **history of today's** Austria and Serbia lies on the territories between the 8th and 10th century. [3] Austria is a thousand years odyssey which refers literary to an epic voyage, but unfortunately started life as a military colony of a foreign kingdom. [1] Both countries were suffering during all centuries but also created a very self-confident social and cultural treasury. The ethnic mosaic of the Balkans impeded the creation of stable states in the past. But without the Balkans, European integration is far from complete, and that is particularly true for Serbia.

The very basic idea during our excursion was to explain our common history related chronologically to every period of human history. We could see the uprising in medieval times within both countries, but a deep difference starting with the modern age in the renaissance and especially during absolutism and the time of the enlightenment. Imperialism of the 20th century and the new Europe show that there is no alternative to the reform process that Serbia ought to have its rightful place in the EU.

PEACE AND CONFLICT RESOLUTION

Already at the beginning of our excursion we were visiting the Austrian Study Center for Peace and Conflict Resolution. It need not be said that the deep meaning of this attendance was hopefully the beginning of a deep friendship of both countries in the future.

Mark Leonard, the director for International Politics at the Centre for European Reform in London, gives us something to cheer us up, in his last publication: *"Why Europe will run the 21st Century"*.[6] Leonard is describing a set of values emerging which are focused on peace, freedom, wealth and democracy. At the heart of Christian doctrine is the belief in redemption – that even the worst sinner can be saved. The European Union embraces this most basic of Christian beliefs in its support of rehabilitation. [9: p.287] The preventive engagement principle is designed to stop crisis happening by marshalling our resources and to shape the behaviour of problem countries. [6: p.83ff.]

Phil Schoenbaeck from the Technical University in Vienna was mentioning the dissimilarity of Austria and Serbia and he was announcing: Serbia is in a much better position now, than Austria has been in the twenties of the past century, when nobody could believe, after the first world war, a survival of the nation. But after the second world war both political parties, Christian and socialist democrats, started immediately elaborating a new model of cooperation called ´Sozialpartnerschaft´.

On the final day of the excursion, we met by chance the second president from the Austrian Parliament - National Council of the Republic of Austria - Mr. Fritz Neugebauer, who invited us spontaneously to visit the Houses of Parliament next day. There he gave us a short lecture about the social partnership and was also announcing like Erhard Busek [2]: "Changes are necessary, especially in view of a common future of Europe".

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STUDENTS PAPERS

ENVIRONMENT AND NATURAL PROTECT

Jović, M.; Kablar, D.; Stanković, I.; Blagojević, B.; Nedić, D.
University of Belgrade, Faculty of Geography, Department of Spatial Planning

As students of Faculty of Geography, Department of Spatial Planning, University of Belgrade, Serbia we took part in a field trip to CENTROPE region. Our task on this excursion was to see how countries in this region (especially Republic of Austria) solved many problems in the field of spatial planning. Beside that, we were interested to get to know the culture, the way of life and history of CENTROPE region itself; because that gave us an opportunity to see and understand how and why these problems appeared and what steps ought to be taken to resolve them. While touring CENTROPE region, the main task of our five member team was to analyze aspects of environment and natural protection. Our work was based on our visit and observations of a Austrian side of National park „Lake Neusiedl". Our observations were extremely positive because we think that solving many economic and demographic problems was followed with high standards in environment and natural protection. And if you want to find out more about our impressions during this trip, take a little of your time, read and enjoy the text bellow.

NATIONAL PARK NEUSIEDLER SEE

In 2001 the Lake Neusiedl region was declared a UNESCO World Heritage Site and joins another 850 cultural and natural monuments around the world. The total area covers about 747 km2 on the Austrian and Hungarian sides. Austria and Hungary share this unique National Park Lake Neusiedl – Seewinkel, which includes Seewinkel, Nature Park Lake Neusiedl, Leitha Mountains, the internationally acknowledged RAMSAR - NATURA 2000 REGION and a biosphere reservation; together with the Rust Hill Region and the Leitha moors they are all part of this one-of-a-kind natural landscape.

Fig. 1 National Park Neusiedler See in Europe

THE NATIONAL PARK LAKE NEUSIEDL

The National Park Lake Neusiedl – Seewinkel was founded in 1993. It is one of the most important and diversified avian reservations in Europe. For centuries this region was used for grazing, which resulted in a unique and specified territory. Around 1970 a lot of the ranches no longer profited from keeping cattle and sheep and the land was used mainly for farming and to grow vine. A lot of the moist and salty areas, which could not be cultivated, were left on their own, resulting in an abundance of reeds. Around 1985, it was realized, that valuable habitats were about to disappear, and grazing was started again. This time there was emphasis on protecting and preserving the natural habitats. Long term studies accompanied the reintroduction of Hutweiden and grassy areas.

The Natural Park Lake Neusiedl – Seewinkel, where about 100 km2 belongs to Austria and the other 200 km2 belongs to Hungary, is one of the most fascinating natural habitats in Europe.

The Lake Neusiedl region, which lies between the eastern end of the Alps and the western end of the Hungarian lowlands, is a unique natural habitat for Austria: The Lake Neusiedl is a biological borderland, where one can find flora and fauna from Alpine , Pannonian, Asian, Mediterranean and Nordic regions. Like a mosaic, there are marshland, dry grassland, oak forests, sand steppe, pasture land, meadows and salty areas next to each other. The lake itself is situated on the lowest point of the Hungarian lowlands and does not have a runoff. It includes about an area of 320 km2, 180 of it as reed belt. Lots of hiking paths and a new infrastructure at the Nature Park Lake Neusiedl - Seewinkel originate in a spectacular and lasting nature event. Most of the 300 different bird species – from long-legged buzzard to tundra swan - can be watched with binoculars or spotting scope. The Information Center of the National Park Lake Neusiedl – Seewinkel in Illmitz is open year round and offers information and exhibitions. There is the possibility to book excursions at the center.

Fig. 2 The National Park Lake Neusiedl

BIRD WATCHING

The biodiversity of the National Park Lake Neusiedl-Seewinkel makes it one of the most significant bird sanctuaries in Europe. The open landscape of the Seewinkel area, an extensive network of paths, and the well-suited infrastructure in the national park offer the visitor an incomparable wildlife experience. The majority of the almost 300 bird species can– with the aid of binoculars or a spotting scope - be observed here in their natural environment. The National Park Information Centre is open all year round and is a point-of-call for all guests interested in the surrounding environment. It is also an exhibition and event centre for the national park region. Visitors can take part in one of the excursions to different parts of the park or learn how to discover the wonders of nature for themselves. Young naturalists can equip themselves with binoculars, tweezers and a magnifying glass and explore the ponds and pastures on a Children´s Excursion – water scorpions, brine shrimps, great egrets and much more await discovery.

Fig. 3 One of the many bird watching cites

NATIONAL PARK LAKE NEUSIEDL – LEITHA MOUNTAIN RANGERS

This area of the Lake Neusiedl region is unique. Nowhere else in Europe can one find near-natural mixed woodland growing on lime sandstone, dry grassland with Mediterranean vegetation, untouched marshes, large expanses of reeds, a pristine river delta and a steppe lake, all within a few kilometres of each other. Hiking trails in the Leitha Mountains, lead by trained guides, lead to scenic spots amidst the mountains and the lake.

NATIONAL PARK GOALS

The Neusiedler Park is a special case among Austria's protected areas, not only regarding its ecosystem, but also regarding the ownership of its land: the land on which it was established in 1993 belongs neither to the Austrian State nor to any country, but rather to some 1200 property owners. The majority are part-time farmers who live in the villages of the Seewinkel area, who have discontinued their use of the land in exchange for an animal indemnity. Parts of the Park in the southern lake area belong to the Esterhazy Foundation, while the larger saline pools and meadowland areas are owned by local land administration associations.

As an international instrument for the preservation of valuable ecosystems, as well as for the development of educational and recreational uses compatible with the natural environment, a national park must fulfill several criteria. Because the supra-national Neusielder See – Seewinkel National Park was already in compliance with the most important criteria at the time of its establishment, the Park was, in 1994, the first Austria to be recognized internationally with the relevant listing under Category II of the IUCN (International Union for the Conversation of Nature).

The goals of protection cannot be realized by discontinuance of detrimental human use alone: in contrast to pure nature conservancy, land management is utilized in a national park to maintain or improve the quality of the biotope. The type and extent of these activities are established in the management plan, which is based on extensive, area-specific research projects.

Fig. 4 Entrance in National Park Lake Neusiedl reserch center

SPORTIVE ACTIVITIES

Ideal wind conditions and the Mediterranean climate are a major factor in making the Lake Neusiedl a top spot for sailing, surfing and kite surfing. Anybody interested in learning how to sail, surf or kite surf, will find a professional trainer in the respective schools around the lake. It is easy to rent sailboats, tread boats and electro boats. Those who prefer to sunbath will find a multitude of open air swimming pools and spas around the lake. But not only water activities are offered for the sports minded guest. There are 500 km of marked paths for bicycling with modern picnic rest stops, a golf course, hiking paths, Nordic walking and 150 km of horseback riding trails. In the winter, weather conditions allowing for thick ice on the lake, there is ice skating and Nordic skiing on the lake and the vast adjoining snowy landscape.

There is hardly another region in Austria that can offer 500 km of bicycle paths as the bicycle paradise around Lake Neusiedl. The well maintained and marked net of bicycle paths offers many exciting experiences in a stunning natural landscape. A total of 11 bicycle paths - some are geared towards the family other towards the enthusiast - invite every year quiet a number of bicyclists. The most

famous one is the Lake Neusiedl Bicycle Path (B10). It takes 133 kilometers to circumvent the lake, 38 of them through Hungary.

CULTURE

Culture can be found everywhere. Whether operetta, opera, classical music or rock festivals – the region around the lake offers musical entertainment of the finest quality and to everyone's taste. Galleries, museums and exhibitions by many artists round off the cultural offerings in the lake area.

Numerous festivals and events from July to early August make summer at Europe's largest steppe lake a must for culture- lovers: the Lake-Stage in Mörbisch, integrated into the natural setting of Lake Neusiedl, presents an annual Operetta festival; St. Margarethen awes with its opera festival on a ruggedly picturesque natural stage in a Roman quarry. Culture aficionados and fans of the great composer Joseph Haydn flock to the Haydn Concerts, in particular to the "International days of Haydn", held in September at the Esterházy Palace. The Nova Rock at the Pannonia Fields in Nickelsdorf is a yearly fixture for all rock music lovers.

Alongside these festivals, the Lake Neusiedl region presents a diverse cultural programme for adults and children alike. Besides the Esterházy castle, which is the landmark of the provincial capital Eisenstadt as well as the most important cultural monument in Burgenland, one can visit the Haydn-House, which Joseph Haydn acquired and lived in for 12 years from 1766, and the late baroque-style Halbturn castle, which was built by Lucas von Hildebrandt in 1711. Other attractions include the Mönchhof Village Museum, the Mörbisch am See House Museum, the Kittsee Palace Ethnographical Museum, the Eisenstadt Diocesan Museum, the Burgenland Provincial Museum in Eisenstadt and the Infeld House of Culture in Halbturn, as well as many galleries, monasteries, archeological excavations and churches like the Cathedral of St Martin in Eisenstadt or the Basilica in Frauenkirchen.

Children's eyes light up not only at the varied programme offered by Fritz Fürstlich, the noble bat who roosts in the Esterházy Palace in Eisenstadt, but also during a visit to the one-of-a-kind Lake Neusiedl Fairy Tale Park in St. Margarethen and Pagagenos World of Opera in the Roman quarry of St. Margarethenhe.

INFRASTRUCTURE AND GIS

Mošić, V.; Radović, M.; Zdravković, M.
University of Belgrade, Faculty of Geography, Department of Spatial Planning

**Infrastructure is the basis of development.
During the seven-day visit to Austria we had a chance to see the state of development of infrastructure systems and to compare with the situation in Serbia.
This paper provides a brief description of infrastructure development in Austria and Serbia.
At the end we tried to give conditional assessment of development.
Also in the paper you can read section devoted to the GIS as a modern tool for managing, organization and monitoring space.**

During the seven-day professional practice, we came to a very large, and for us valuable knowledge and experience that they shared with us courtesy of our hosts throughout central Europe, particularly from Austria. The area of the entire infrastructure as a backbone of social development and application of GIS has certainly have been one of the most interesting parts of our practice. The countries we visited are full members of the EU, and as such served us as a unique model for comparing and learning about some of the segments that we expect in the process of development. Also, we encountered and the segments in which our country is more advanced than the countries we visited, to which we are especially proud of, but which bind us to continue to work and develop it.

SOS phones on the road

As part of standard equipment in addition to highways, in Croatia there are SOS telephones. Also, the SOS telephones are installed on the motorways in Austria. Are placed every 5 km. In special circumstances, for example. in hazardous sections or placed in tunnels and on the lesser distance. In Croatia, the SOS telephones in the tunnels placed at a distance of 300 feet, although the critical points can be placed at short distances. The importance of the equipment segment of the highway has a great importance is reflected in the possibilities of communication in emergency or potential incidents. This kind of help on the roads in Serbia is still not there. Great importance to the SOS phone must inevitably lead to their greater presence on our roads.

Construction of protection against noise

Noise has a very negative and long-term effects both in man and in okolinu.Postoje three types of materials which are made protective walls, wood, Plexiglas, aluminum, and the right and vertical walls, or embankments . Also, for this purpose may be used and the pavement construction solutions, for example. the highway buried in the ground. Noise comes from the engine and the friction between wheel and road cars. It is released and the air goes at an angle approximately 45 °. The essence of building these structures to create a noise barrier and prevent its emission into surrounding space, especially if they are located next to the driveway near settlements or other objects sensitive to noise. All the above highways in Europe include the construction of all such areas where the local population or threatened natural and cultural values. In Serbia, such walls are still not represented. These structures certainly have become standard equipment on our roads.

Lifts and ventilation systems in tunnels

These systems are very important segments of highway equipment. Their already great importance increases with the length of the tunnel and the depth at which they buried. Contingency stopping in tunnels which can sometimes be long and a half more miles in these conditions, no solution can often be a fatal outcome. On highways in Croatia and Austria, these systems are well installed. On the roads in Serbia so far there are no approximate solution quality as in Austria and Croatia. The place where these systems are generally reduced to the stairs to evacuate from the common channel in order to ventilation. Highway south of Leskovac, and the route from Belgrade to the Southern Adriatic, which undoubtedly put greater demands in terms of building the tunnel, will set higher standards in this regard.

Drainage systems on the roads

Drainage systems on the roads are compulsory and complicated parts of a highway project documentation. It is important that all atmosphere water washed oils and other dirt from the highway, take the drainage channels to collection tank, where it is discharged after treatment in the recipient. Such systems are somewhat present on our highways. Although the EU legislation there are no clear provisions and standards in terms of drainage systems, their importance is certainly great. However, directives that are indirectly related to these systems, the directive on water - 2000/60/eg directive of the European Union and the Council of Europe of 23 October 2000. year, which deals with the goals in terms of quality and quantity of surface and ground water. Highways in Austria have a high quality drainage systems. In our country, in some places there are separation systems of drainage, but they are still present selfdrainage systems discharge polluted water into the surrounding area. The big problem on our highways, the absence of drainage systems in some corners where creating the conditions for the emergence of "aquaplaning" effect, which is a big threat to traffic safety. The importance of these systems is manifold and their slightly higher cost of construction should not be an obstacle to their construction.

Horizontal and vertical signalization

Horizontal signalization is refers to the markings on the asfalt. What we have seen in Croatia, and that in our country there is no indication during the fog, while others are content to law, and the roads usually present with us as well as in the EU. Vertical signalization is refers to any additional signs, traffic lights, road signs etc… Often the highways in Europe can meet big infoscreens above the road that can run the temperature, the speed limit or any additional information, such as work on the road, the appearance of fog, ice, etc.. Price for installation of vertical signalization is much higher than horizontal, but despite that, based on its importance multifunction and easy content changes, it has become standard equipment on our highways. For now, the obvious shortcoming, especially infoscreens on highways.

The protection of fauna on the roads (overpasses and barriers on the side of roads).

Serbian traffic engineers still have not achieved significant success is thinking of animal migration, which is interrupted by the construction of roads. Highways are the corridors that cut through the territory of the left and right sides and prevent any movement. To be the building ventures to some extent be reduced, we have seen on motorways in Austria, where there are overgrown grass or forested overpasses that serves as a passage for the animals. Also, even on the regional routes have low net placed several meters from the road along with them. Their purpose is to stop the frogs and other reptiles to come out on the driveway. Overpasses significant investment but the standards are stricter all the obligations which our country will have to forward in their integration process. For now, the roads in Serbia there are only protective fence, primarily on highways.

Additional regional roads, railways and other infrastructure facilities in the corridor of the highway

During the construction of the highway from a large number of practical reasons should be planned to fit in the same corridor as much of the infrastructure lines. In that way we can save and protect space and contributes to better overall organization of space. At the same time, the transport that for some reason can not be conducted along the highway, you need to build a railroad. In the event of an accident, blockage or other emergency, shall be provided with alternative routes. And in our country and the EU countries, these infrastructure facilities are enviably high. In our country it is regulate with spatial plans of infrastructures corridors for corridors that are made before the construction of highways.

Circular flow and loop - functional and aesthetic dimensions

In Europe is often appearance of replacing standard intersection of the roads (with traffic lights or without them), with circular flow. It should be borne in mind that the practical side of circular flow decreases with increasing frequency of traffic, so the busy intersection should be avoided. A large number of circular flow is nicely decorated with, usually some greenery, flowers, statues, and even a fountain or ponds in the middle. The presence of these circular flows in Austria is increasing and that for practical reasons: aesthetic, environmental and security. Very important ecological function of the circular flow is that the classical intersections need to stop the car and that start the car engine again, which claim the greatest amount of exhaust gases. On the circular flow there is no need to stop. In Serbia circular flows are not nearly as present in Austria and other EU countries, but because of these advantages of this type of solution should become a strategic commitment on our roads.

Strategic estimates of the impact of structures on the environment

This is a very important and mandatory in character document that tracks all types of spatial plans that contain strategically important objects. This document requires detailed analysis and must provide all forms of influence on the environment. In Austria, this document is made after a lengthy analysis, which often lasts a year or two years. This system is in safe hands and a limitation in the development but it is justified by the quality of results. In this analysis we can perform much faster and with greater degree of generalization, which ultimately has a significant impact on the quality assessment.

Buffer Zone

Green protective belts are effective protection against noise and air pollution. The leaves of trees absorb large amounts of dust, smog and toxic substances that are released into the traffic. During the construction of buffer zones is of great importance selection of plants, which depends on climatic conditions, applications and other functional requirements. Buffer areas are standard, and a widespread system of the EU as well as with us, in the city, on highways, but also the lower order roads.

Toll - collection systems

Toll – collection systems vary from state to state, Serbia and Croatia in the current collection routes by using conventional toll booths. In Austria, Slovakia, Czech Republic, Hungary, Slovenia and other EU countries, the collection is done through the purchase of vignettes at the entrance to the country. Vignettes may be worth 1, 7, 30 or more days. This system is considered better because of the significant savings in time on the toll highways. It works on the principle of the sensor is placed in places where previously there were traditional toll booths. Sensor registers the picture pasted on the windscreen of vehicles passing through the toll point, and the vehicle passes freely. Vignette system does not require significant investment and a huge saving given that no additional employee.

Bridges

Because of its many similarities Belgrade and Vienna are cities that are often used throughout history for many comparisons. Although the physiognomy of these cities is very similar, in both the city flows the Danube, it is not similarity, which is caused development similar bridges. Vienna has developed on both banks of the river and Belgrade only on the

right. In Belgrade, on the Danube was built only one bridge, on the Sava River Belgrade have four bridges. Most of these bridges are in very serious condition, and they need reconstruction. In Vienna, there are 10 bridges across the Danube. Bratislava as a city with less than half a million people there are 5 bridges, and plans to build and sixth. Price of these facilities is very high, ranging up to over 100 million €. However, despite the difficult financial situation the city, in Belgrade during the construction of another bridge over the Sava River, the height of Ada Ciganlija, and completion of project documentation for "Chinese Bridge" who will connect Zemun and Borca, which should encourage more intensive development of Belgrade on the left bank of the Danube.

Cross-border cooperation

In central Europe, made the project cross-border cooperation between the two closest major city-Braatislave and Vienna. The collaboration is designed to increase competitiveness of the region. This kind of cooperation must inevitably follow and adequate infrastructural facilities, which has recently made significant progress. Reminder of work, only twenty years between the two countries and the city, there was a "iron curtain". In Serbia, this level of cooperation of some of our city to a city abroad, there are no tangible potential, but it certainly can do a lot of networking at the level of two adjacent regions.

TWIN CITY LINER

As another form of transportation connections between the two cities and marine transport. He is currently the most effective because of the fantastic resources that provide them with the Danube. River transport has a range of benefits and it should certainly force in situations where there are conditions. In Serbia, this kind of traffic would be a more important role should be to obtain, especially in connecting cities on the Danube, but in pespektivi and other cities in our navigable or potentially navigable rivers.

Regulation of the Danube

The great river Danube is not in the past looked like today. In Austria, as well as in Serbia on the Danube have undertaken significant hydromelioracioni ventures to become navigable Danube and regulated European rivers. Danube in Austria is much less flow, but also much faster than in Serbia. For the purpose of building settlements on the banks of the Danube, it was necessary in Austria and Serbia to invest considerable resources in the regulation of this river.

Hidroenergetic in Serbia and Austria

One of the strategic orientation of Serbia in the period of industrialization and increased energy consumption, apart from thermal and hydro power plants were. The largest hydropower plant in Serbia, but also one of the largest in this part of Europe HE Djerdap. Next to it in Serbia there are several significant hydropower. Determination of Austria were hydroelectric and their share in total electricity production is significantly lower than in our country. Hydropower is energy-expensive systems that have a range of positive and negative impacts on the environment.

Channels, Danube and Danube islands and their relationship with the function of sport and recreation

The Danube is the first regulation of "the Vienna-door" had a large number of Meander, plavina and Shaft. When a regulation of the Shaft are buried, and some depth and channeled, and today are an excellent place for weekend outings, sports and recreation. Danube in his bed through the very Vienna has long artificial island over 20 km. Belgrade also has a well-regulated Sava Lake, Ada Ciganlija and Zemun quay, but for now the great, untapped potential for sport and recreation in Ada Huja, the right bank of the Danube and other attractive locations.

TTT (Transcontinental transport terminal)

The idea that the end of the Trans-Siberian Railroad extended a large terminal that would receive all the goods which come from China. It would be a completely new town near Vienna and Bratislava. The price of this terminal is very large, measured in billions of €, but thanks to the matching of different interests can become a reality. These concrete projects in this country, for now there is still no, but thanks to a very good strategic position of Serbia is such a project can be expected in the near future.

Water supply infrastructure

The tradition of this system in Vienna is very long, was built at the time of Franz Josef. Is 230 km long and is very good quality. In Belgrade water supply system works combined, supplying from the Sava and from groundwater wells. Water Plant is located in Makis. The system also works very well.

Waste incinerators

The burning of waste is a very reliable method for destroying waste in a big city, getting the energy that is released in the process. Waste incinerators located in the center of Vienna. The building, as well as the whole process is designed in a completely reliable and environmentally friendly way, so there are no negative impacts on the environment. Perfect functioning of this system seems simply impressive. In Belgrade, this system is the burning of waste is still not real, but due to a number of positive characteristics, it is really becoming a major newspaper in our country.

The system of railway stations

Vienna Railway Station is currently under construction, as well as Belgrade. Both the old stations have been constructed as a last resort, while the new constructed as temporary. The problem with Belgrade railway station is its location. The station is located in the city center, situated on land with a very high price and excellent location for other attractive content. Rail traffic passing through the center of town and is a major problem. The solution to this problem must become a priority.

A system of urban greenery

Green in the city, in addition to their aesthetic features, it is considered very important strating with ecological then sport and recreational functions. Increase the area under the greenery in the cities is aspiration. Although both Belgrade and Vienna can not complain about the lack of greenery rastičan, Vienna, however, this aspect of spatial regulate at a higher level of Belgrade. While in Belgrade, in some parts of the city reduce the green area, and even those of particular importance, in Vienna there is a rigorous legal regulation and maintenance of statistics and measures through the recording chips, better machinery and others.

Ports

The importance of the Danube River Danube in terms of traffic is very high. Danube canal is connected to the Rhine on Main, and in this way linking the North and the Black Sea and passes through a number of cities and 10 states. The largest of these cities belong to the group of small, but each of them the river is a great development potential. Austrian towns on the Danube is very well connected ports through which achieved a significant relationship with other cities in the country and abroad. This development potential in the Serbian cities is not adequately valorized, but represents a significant development opportunity that will certainly become an important part in the plans. For this initiative and encourage our cities Transborder numerous projects related to the Danube.

Irrigation system (emphasis on a system "drip to drip")

Modern agriculture in significant yields can not be calculated without intensive irrigation. Irrigation systems are not that significant investment is a serious agricultural production impossible. In Austria, thanks to favorable conditions for large irrigated areas. A very important part of it is irrigated systems is system "drip to drip", which are among the most productive system. In Serbia the situation with this systems is very bad.It only irrigate very small area, despite the very good potential. Anyway, good conditions at a higher level are constructed by building a channel "Danube-Tisa-Danube in Vojvodina, but it is practically very little benefit. Part of that well-designed system is completely neglected and overgrown with weeds. This organization of the system greatly reduces the yield and must be immediately accessible to its correction.

A system of protection of the agricultural areas from hail

Hail and other weather disasters cause great damage to agriculture. Organization and building systems to combat natural disasters time is just as important as other works in agriculture. In Austria the majority of orchards and vineyards above the plantations established networks that help prevent attacks of the hail. In Serbia, such systems are symbolically represented. The importance of these systems is high, and investment are much lower than the costs of rehabilitation and loss of production.

Balconies for vineyards

Balconies for vineyards are represented in the hilly Austrian viticultural regions. These terraces have more feature-in addition to saving the land, there is a present and heating pedološkog cover by stone walls in dark colors which attract the sun's heat. In this way, creates a microclimate that is suitable for the cultivation of vineyards in the latitudes that are really can not say that the typical wine. Thanks to that Austria has become a significant producer of quality wines. In our country the situation is completely different. Viticultural area that previously had significant production in the largely neglected. Not to mention that we have much better natural conditions for growing grapes. If we add to that the fact that in our vineyards, not using some of these systems, no wonder that, at first glance, the worse conditions in Austria, giving much better wines of our once famous vineyards.

Bicycle paths

Bicycle paths are very common all over Austria. There are everywhere, starting from the urban centers, to complete the natural landscape. The goal is to connect the whole of Austria and enable tourists to the country can visit on a bicycle. As part of that, there are also rent-a-bike companies. Function of bike is multiple - choise, environmental, recreation, health and others. In Serbia, this trend only in the initial stages of expansion, in some cities there are significant projects on the subject, as well as the projects of building long-distance routes.

A referendums (public participation in decision-making)

Public participation and transparency in making significant decisions in the field of infrastructure proved to be good. It remains an open question how much the average citizen can bring quality and constructive decision. Austria is thus made a very important decision. The referendum was the way to Austria to determine the function in terms of energy supplies. Referendum held two of its kind. With the advent of the oil crisis, a referendum was passed that the strategic goal of producing energy become renewable energy sources, and a vote of no confidence in nuclear power plants. Today we witnessed a fantastic energy organizations in Austria, based on renewable sources of energy. In Serbia, public participation so far only symbolically, without engaging in making strategic decisions.

Analysis of energy consumption, biofuels, solar energy, central heating and cooling systems, biomass (Güssing model ")

Technology Centers are places where they carry out different studies, where conclusions about various matters made the most capable professionals in modern conditions. These technology centers are rare in Austria, we are witnessing the results of their work. The town Güssing there such a center where they perform an energy analysis. The work of this center was created many jobs, a large number of problems solved and obtained knowledge in the field of inestimable value. These technology centers in our country there is very little. As the largest resource of knowledge, these

centers have become part of our reality, the only way we can have positive results.

Solar energy (Ubersdorf)

Solar energy is an inexhaustible source of energy that is often mentioned in the last decade. In our use of this source is not represented and there are indications that it will be nearly so. In Austria, the Ubersdorf in a plant that is partly supplied with electricity from solar radiation (the second part of the combustion of wood). This method shows a series of supply of environmental benefits, and financial terms. The potentials are high and expected to be all the wider application of this method of energy production.

Windmills

The use of wind power is a very rewarding way of producing energy. Ecological aspect of energy production is certainly an additional incentive for increasing the representation of wind. While not exactly cheap ventures (1 million € per windmill which produces 1.5 MW of the energy) in one part of Austria and Hungary this has become a strategic choice that is istitutionaly supported by local governments. In Serbia, the production of wind power does not exist yet, but as for that in some parts of the country there are good conditions are expected in the first windmill.

Using the floating hydro-turbine

Production of electric power in classic river hydro power plants with construction of hydro accumulation is not a strategic choice of Austria. In this decision, despite all the positive characteristics in Austria outweighed the negative impacts, such as the negative impact on flora and fauna of rivers, settlement and resettlement of others. The use of hydropower in Austria is based on a completely new and not so often applied way - by using the floating turbine. These turbines are the cable attached to the shore or bottom of the river and the mechanism of movement of river water using electricity produced. Their advantage is that in the ecological sense of a completely neutral, in terms of cost and virtually unlimited number of which can be installed in the river bed. In Serbia, this energy production is used for now while we have very good potential in our rivers.

Tourist Information System

"Zimmer Info" - Information system for informing visitors about all the important details of the hotels, motels, hostels, accommodations, prices, excursions, tourist attractions, etc.. The system of great benefit to tourists and tourism workers and organizations in the provision of service and other information. Operate through web sites or distributed by electronic portal, town or other important areas. Very useful systems in unpredictable situations, loss of hotels room keys, disorientation in space, etc.. These systems are very widespread in all major towns in Austria. In Serbia, so far such systems do not have much more but with the development of tourism and increasing numbers of tourists and it is necessary to develop such systems.

Application of GIS in the organization of activities in space

Application of GIS and captures all the wide application in all areas of human life. In urban areas, much of Austria has developed a system view of urban structure, three-dimensional buildings, street networks, natural systems, infrastructure and other facilities. Especially interesting are the "systems 24 and/or 48 hours", where every individual has access and can log any time a malfunction or irregularity in the functioning of a system, and that the competent services in 24 or 48 hours, depending on the concept of the system, remove the defect. Such systems organized at higher or lower levels have in our cities. In accordance with their importance should not expect their greater expansion.

The following table presents the relative comparison of some of these infrastructure facilities and systems in Austria and Serbia. Evaluating each individual grades from 1 to 10 will try to do graphic comparison of infrastructure development in Austria and Serbia. In this way we get a clear idea about the state of infrastructure in our country.

Infrastructure systems and facilities	**Conditional evaluation of development (1-10)**	
	Serbia	**Austria**
SOS phones on the road	1	9
Construction of protection against noise	1	9
Lifts and ventilation systems in tunnels	2	9
Drainage systems on the roads	4	9
Horizontal and vertical signalization	7	9
The protection of fauna on the roads (overpasses and barriers on the side of roads)	1	8
Additional regional roads, railways and other infrastructure facilities in the corridor of the highway	8	8
Circular flow and loop	5	7
Strategic estimates of the impact of structures on the environment	8	9
Buffer zone	7	8
Toll - collection systems	5	9
Bridges	3	9

Cross-border cooperation	2	9
TWIN CITY LINER	3	8
Regulation of the Danube	8	8
Hidroenergetic	8	2
Channels, Danube and Danube islands and their relationship with the function of sport and recreation	7	8
T.T.T. (Transcontinental transport terminal)	1	2
Water supply infrastructure	5	9
Waste incinerators	1	9
The system of railway stations	4	7
A system of urban greenery	6	8
Ports	3	9
Irrigation system	2	8
A system of protection of the agricultural areas	3	8
Balconies for vineyards	1	9
Bicycle paths	5	8
A referendums (public participation in decision-making)	5	9
Analysis of energy consumption	2	9
Solar energy	1	6
Windmills	1	8
Using the floating hydro-turbine	1	2
Tourist Information System	1	7
Application of GIS in the organization of activities in space	3	6
Average level of infrastructure development	**3.68**	**7,71**

Tab. 1 Comparative development of infrastructure between Serbia and Austria

From the above analysis we can clearly see that the level of level of development of infrastructure in Serbia in comparison with Austria at a significantly lower level. The average conditional rating of Serbia in the previous analysis is almost double lower than the Austrian. The consequences of this situation are visible at every step, from the activities of primary agricultural production, manufacturing, transportation, energy, service industries and tourism, and finally to science and education. In all these and many other areas of Austria has developed from Serbia. Developed infrastructure is not the only reason for it, but it is certainly one of the leading as the backbone for the entire development. High level of socio-economic development, hence the living standards of the population can not be without adequate infrastructure. Often the infrastructure is a prerequisite for the high indicators of these categories of development, so it has to be built before other activities. Primacy, high cost, long term payments, long period of construction are the characteristics of infrastructure, which greatly limited its development. This is particularly characteristic for transition countries with low budgets, such as Serbia.

The high level of infrastructure development in Austria is the result of a pronounced continuity in development. The presence of a strong strategy is evident in projects that are old and in a few centuries, which continue to develop and reconstruct. The participation of national, regional and local authorities and first-class organization with the participation of the presence of a large number of participants certainly play an important role in the development of Austria. Finally, substantial differences in GDP between Austria and Serbia was an important factor in differences in the level of infrastructure development between the two countries.

In Serbia, the relatively poor state of infrastructure development, mainly due to lack of funds needed for construction and maintenance. However, all developed countries are going through a period that we now move. What is evident is inadequate strategies and the frequent interruptions in the continuity of building infrastructure in Serbia. We come to the conclusion that this is primarily an organizational problem, and then financial. Negative organizational aspects can be added and imprecise negligence in the maintenance of some infrastructure systems both at the national and local level, such as neglect and neglect, letting chaotic decay. Development of infrastructure is certainly a priority, which is undoubtedly seen in Serbia. Positive perspectives of the Serbian infrastructure obvious a reality with the works in progress and is planned. There is a large number of capital infrastructure projects over the country, which should initiate the development of the whole economy. They cost a lot but are inevitable and have no alternative. Also, a large number of problems of infrastructure in Serbia does not depend exclusively on the financial aspect, in such cases it is necessary to intensify the role of local authorities and local population by encouraging self-organization.

RENEWABLE ENERGY – "GÜSSING MODEL"

Radović, M.; Mošić, V.
University of Belgrade, Faculty of Geography, Department of Spatial Planning

Every day more and more renewable sources of the energy are used.
Austria is a country that is perhaps the most progress on this issue.
We had a unique opportunity to visit the city Güssing which is widely recognized for its commitment to use renewable energy sources.
Below in text, you will have the opportunity to read work that reflects what we saw and learned.

RENEWABLE ENERGY

The word energy is derived from Greek words meaning Energeia activity. Energy is characteristic of the system to perform the work. According to the international system of units, in honor of the English physicist Julie (James Prescott Joule) unit of measure is named joule (J). Energy can not be destroyed nor created from anything, it just moves from one form to another (law of conservation of energy). For the amount of electricity consumed is used kWh, MWh and GWh. In the development of energy balance, the practice is that the categories of carrier power measured in tonnes of oil equivalent, abbreviated tan. One ton of oil equivalent is 41 868 GJ, ie. 41 868 billion joules, or was, or 11.63 MWh.

Middle of last century, scientists from various professions have begun, first quietly and then louder to warn of negative consequences of times that humanity moves. Forecasts were often fatal. Long it took the world public to accept the fact that something is definitely wrong, and that they must take serious steps that we would not have destroyed the planet, the only of our habitat. The manner of functioning of mankind led to the emergence of ecological crisis, often prožimanih ecological catastrophes that were rare in previous decades. Views of different parties on these issues are different, proposals for solutions is also much, but a shift is certainly the generally accepted sense of the problem. If we add to this situation that the fossil fuels, which is based on the highest percentage of energy production, as less energy problem gets more complex structure. There are various estimates of experts on coal, oil, gas and other energy sources, and none of them is not at all optimistic. This is all happening at a time when energy demand is increasing, when the number of its users any more, and range of its all-purpose spread. This situation inevitably leads to problems that must be seriously approached.

Since the majority of environmental problems in a way related to energy, either through energy production either through its consumption, it is logical that one of the most common opinion that the problem lies in the new energy sources. By developing and using alternative energy sources to a much greater extent than today, it would be possible to reduce emissions of carbon dioxide and other gases that participate in the construction of greenhouse gases, global warming, and therefore climate change.

Of course, it is necessary to invest in the development and improvement of new methods of energy production. These investments are important today, but still, globally speaking insufficient for significant results, so that ssu cost of conventional energy sources are still significantly lower. This situation is current, but with similar trends, at least in the short term. However, if you look at the image, calculating the long term, alternative sources could become isplaiviji. This is especially important if we take into account population growth, and therefore increase the need for food, water, space and energy, and the fact that the fossil fuel is certainly one to spend. Also, one of the important facts and less environmental pollution by using renewable energy sources, and is in line with all these beautiful future ahead of them.

Alternative Energy represents a one primary energy sources, to the world's energy crisis early seventies, the energy supply of the civilized world have participated or are participating symbolic. Called unconventional or even eco-resources, new energy sources, etc. Often the "alternative energy" and "renewable energy" identified, but there is a difference between these two terms. In fact, renewable energy sources do not have to be alternative-nekovencionalni. For example, water energy is used in large electric power plants belong to the traditional renewable energy sources, and Water energy from small hydropower is one of the alternative sources. Therefore, if we talk about alternative energy sources, more accurately say the new renewable energy sources, but only renewable energy sources.

Renewable energy sources are those that are at least average looking, every year, displayed in the same amount in the same area (with periodic deviations). Unlike non-renewable sources that will gradually, at some point definitely exhausted. We include the non-renewable sources of fossil fuels and nuclear energy. According to the European Union's Directive on renewable energy, they include: wind, solar radiation, heat the Earth, ocean energy (waves and tide on the ebb tide), water power, biomass, landfill gas and biogas. Firewood can be considered a renewable source of energy only if the annual energy consumption obtained in this manner less than or equal to his annual increment.

Geothermal energy is in between. Theoretically it is non-renewable source of energy. However, since the exhaustion of its thousands of years away, it is the human conception of time geothermal energy renewable energy source.

Form of primary energy	Renewable (Yes/No)	Conventionality (Yes/No)
Coal	**N**	**Y**
Crude oil	**N**	**Y**
Natural gas	**N**	**Y**
Wood	**Y**	**Y**
Water power (high hidro plants)	**Y**	**Y**
Water power (small hidro plants)	**Y**	**N**
Geothermal energy	**Y**	**N**
Biomass i waste	**Y**	**N**
Wind	**Y**	**N**
Solar energy	**Y**	**N**
Power of sea waves	**Y**	**N**
Nuclear fusion fuel	**N**	**N**
Nuclear fision fuel	**N**	**Y**

Tab. 1 Forms of primary energy by renewable and conventionality application

From renewable energy sources supplied 18% of total world energy (data from 2006..), But most of that energy derived from the traditional use of biomass for cooking and heating. Of large hydropower plants are getting 3%. Therefore, when we exclude the traditional renewable energy sources, it remains to produce new sources of energy 2.4% of the total world energy. Moreover, 1.3% of waste in installations for heating water, 0.8% for electricity generation and 0.3% to biofuels.
Energy picture of Serbia today is characterize by absolute dominance of electricity generation from fossil fuels, primarily coal. The remainder is produced mainly in hydroelectric power stations. On the whole territory of Serbia is the use of renewable energy sources, except hydroelectric, negligible. Potential for their use in Serbia is certainly there, except energy sea.

Solar energy. The average solar radiation in Serbia is about 40% higher than the European average, and amounts to 1400 kWh per m² per year. Solar energy is transmitted throughout the year to 1 m² roof Serbia is equal to the energy that it gets burning 130 liters of oil, and is completely free. Serbia fell favorable zone for the use of solar energy. The settlements are low density objects are mostly self-standing, without major obstacles approach the sun, which allows the use of solar energy for heating and hot water production. The greatest potential for use are cities in the southern part of Serbia - Nis, Kursumlija, Leskovac, Vranje.

Bio-waste. In developed countries, there are technologies for processing organic waste from households, leaves and grass from streets and parks and the like. Bio-waste is the raw material for energy production. In Serbia there is the potential as well as everywhere in the world, can be expected in the future to install these plants.

Small hydro power plants. In Serbia have been identified 856 sites for construction of small hydro power plants. The forces of these hydropower plants ranging up to ten MW. The total power is about 449MW, of which could produce about 1590 GWh, which is about 4.3% of total electricity produced in Serbia. For this level of production of electricity in thermal power plants should consume about 2.3 million tons of coal or 400,000 m³ of natural gas from abroad. Small Hydro would run through this account should save about $ 52 million a year.

Biomass. Energy production from biomaese in Serbia has great potential. Almost every part of Serbia is rich in specific raw materials are important for this form of energy. Although the current situation is very favorable in terms of raw materials, what specific measures can be further adjusted and improved.

Wind. Although in some parts of Serbia there is a long tradition of using wind energy, modern way to use the Speed does not exist yet. Wind turbine not even primarily the eastern and northeastern parts of Serbia have very good potential.

Geothermal energy. Using this form of energy in Serbia is far from optimal scale. Potential for its use are high. Like other forms of renewable energy sources, only the expected significant use of geothermal resources.

Austria is one of the leading countries in the area of renewable energy. In Austria, the share of renewable energy sources in comparison with other European countries have traditionally been very high. Since the beginning of the 1980s the proportion of renewable energy in gross domestic consumption is constantly above 20%. In this respect Austria is a country that we should certainly be a bright example.

Solar energy. There are numerous examples in Austria who are use this source of energy. Visiting Austria, we encountered a fantastic example Ubersdorf where there is a plant that is partly supplied with electricity from solar radiation (the second part of the combustion of wood). This method shows a series of supply of environmental benefits, and financial terms.

Waste. Waste incinerators (Vienna) - The burning of waste is a very reliable method for destroying waste in a big city, getting the energy that is released in the process. Waste incinerators are located in the center of Vienna. The building, as well as the whole process is designed in a completely reliable and environmentally friendly way, so there are no negative impacts on the environment. Perfect functioning of this system seems simply impressive.

Biomass. A significant portion of energy in Austria produced from biomass. A real example with high organization level of a settlement, we also saw in Ubersdorf-in. Fantastic central heating system burning wood in the district surrounding the control plant, four to each cut tree give the right weight component renewable wood as a source of energy.

Hydroelectric power. Electricity in the classic river hydro power plants with construction of hydro-

accumulation is not a strategic choice of Austria. In this decision, despite all the positive characteristics in Austria outweighed the negative impacts, such as the negative impact on flora and fauna of rivers, settlement and resettlement of others. The use of hydropower in Austria will be based on a completely new and not so often applied way - by using the floating turbine. This is currently in concept stage but no one should doubt the wider application of these systems because of all their advantages.

Ussing wind power is very grateful to energy production. Ecological aspect of energy production is certainly an additional incentive for increasing the representation of wind. While not exactly cheap ventures (1 million € per windmill which produces 1.5 MW of the energy) in one part of Austria and Hungary, this has become a strategic choice that is supported institutionally by local governments.

Compared to Austria, which, as we have said is a unique force in the implementation of renewable energy sources and a good example of the world, Serbia is not to be proud of these results. On the contrary, they are very humble and have a lot to do to fix them. However, alternative sources, despite its positive features, not perfect, and with them should be planned carefully. They also should not expect miracles, which will happen over night. The present level of pollution is reached gradually through a long period, and will give us more extended period of time will be needed to repair the situation. In addition, such a complex system such as the environment, heal and protect, is a difficult process and it is not enough simply to introduce cleaner energy production. You need to work on all aspects of care and strive for sustainable development.

As a European country, Serbia seeks to join the EU. This inevitably entails hard work and commitment to environmental issues that are inevitably closely linked with the introduction of renewable energy sources and increasing their use to a higher level. It's not just membership in the EU for that reason, even more reasons health of our citizens, our own economy and achieve a higher degree of economic independence, given that we are a significant part of the energy we import from abroad. On the basis of good analysis-made to date, Serbia has good conditions for the activation of almost all forms of renewable energy sources.

Southern parts of Serbia are most suitable for the use of solar energy, so therefore these parts should first be activated. When it comes to wind energy, there are certain locations where soft winds blow, especially in the high mountains. It is in these parts, with the necessary detailed analysis, you should ask Wind turbine. Geothermal energy has a long tradition in Serbia, but only in balneološke purposes. Great potentials of this form of energy simply require more intensive use of broad spectrum. Biomass is now used, but not in amounts and forms which should be given the resources. It should be particularly cautious with conditionally renewable sources of energy, especially wood for the period of forest regeneration is very long, so potential mistakes cost dearly. Construction of small HPP has good potential in Serbia, but most are clear mountain streams, which in addition to its invaluable natural treasures have potential value in terms of drinking water, and they should not be any use in this purpose

In the end, the biggest problem in terms of renewable sources of money. You must build new systems, wait for a number of years of depreciation on investment, and maintenance and improvement. As for now, individual investors are not fully interested in these projects, the lead would have to take over the state. The state itself as an investor, but also in terms of support and encouragement of interested individuals to take an important role.

Economic trends at the global level are very negative, to say nothing of those prevailing in countries like Serbia. In such conditions, we left to wait for a good time or do something that will Change the World. Economic crises have always brought change, and the world after, never was the same as before them. So let this economic crisis bring revolution, for example in terms of renewable energy sources, why not?

GÜSSING MODEL

Güssing is the capital of a district with approximately 27,000 inhabitants and is situated in a region with some deficits concerning infrastructure. In 1988, this region was still one of the poorest in Austria according to statistics. On account of the geographically unfavorable location near the border, major trade or industrial businesses did not exist at that time and the whole district did not have any transportation infrastructure at all (neither railroad nor highway). This resulted in a scarcity of jobs, 70 % weekly commuters, and a high rate of migration to other regions. In addition, there was the problem of substantial capital outflow from the region caused by energy bought from outside (oil, power, fuels), while existing resources (e.g. 45 % forest land) remained largely unused.

In 1990, experts developed a model, which provided for a complete abandonment of fossil energy. The objective was to supply, in a first step, the town of Güssing and subsequently the whole district with regionally available renewable energy sources thus providing the region with new forms of added value. The model comprises the aspects heat generation, fuels, and electric power.

First steps toward implementation consisted in targeted energy saving measures in Güssing. As a result of the energetic optimization of all buildings in the town center, expenditure on energy was reduced by almost 50 %. Then, the realization of numerous demonstration energy plants in the town and the region helped to promote the implementation of the model step by step. Examples include the successful installation of a bio-diesel plant using rape oil, the realization of two small-scale biomass district heating systems for some parts of Güssing, and, finally, a district heating system based on wood fuel supplying the town of Güssing.

Energy self-sufficiency was finally realized in 2001 when the biomass plant Güssing was installed; it relies on a newly developed biomass-steam gasification technology. At present, Güssing produces more energy (heat, fuels, and electric power) from renewable resources than is consumed in the town

on an annual basis. This benefited the region an added value of Euro 13 million (calculation based on 2005 figures) per year.

The implementation of the innovative energy concept set off a sustainable regional development process, which transformed the formerly "dying region" within 15 years into a region with a high living standard and excellent quality of life. In recent years, Güssing has been awarded honors as the "environmentally most friendly town" and "most innovative municipality" in Austria. One of the first infrastructure improvements, i.e. the installation of the district heating system Güssing (1996) made the town on the border already an interesting location for the establishment of businesses. A special scheme promoting the establishment of enterprises in the area brought 50 new enterprises with more than 1,000 direct and indirect jobs in the renewable energy sector for the region. Güssing since has developed into an important location in the fields of parquetry production, hardwood drying, and environmental technologies.

The realization of the biomass plant Güssing and the establishment of the **RENET** Austria (Renewable Energy Network Austria) competence network gave rise to the launching of numerous national and international "renewable energy" research projects in Güssing. The **"European Center for Renewable Energy"** coordinates all demonstration plants, projects, research emphases as well as programs for training and further education in this field. The manifold research activities here have also contributed to the attractiveness of the region and to the creation of additional high-quality jobs.

Sustainable energy concepts based on regional renewable resources

The flagship and most important innovation of the Güssing model is the biomass plant, which uses a special fluidized bed steam gasification technology. The process developed at the Vienna University of technology offers some advantages as compared to conventional combustion processes, especially in combined heat and power applications. For the realization of the project several partners cooperated within the competence network RENET: REPOTEC plant technology, Vienna University of Technology, EVN, and the Güssing district heating utility.

The plant, which started operation in 2001 has a rated fuel capacity of 8 MW and produces 2,000 kWh electric power as well as 4,500 kWh heat for district heating at a feed rate of 2,300 kg wood per hour. The plant currently operates for 8,000 hours per year.

The vital component of the plant, i.e. the fluidized bed gasifier consists of two fluidized bed systems that are connected with each other. Biomass is gasified, together with steam, at a temperature of approx. 850°C in the gasifying zone. Using water vapor instead of air as gasifying medium results in a nitrogen-free, low-tar product gas with high calorific value. Part of the residual char is conveyed, by the circulating bed material (sand), which also serves as heat storing medium, to the combustion zone and is burned there. The heat transferred to the bed material is needed to maintain the gasification reactions. The flue gas is then separated and the heat contained therein is used in the district heating system.

The product gas has to be cooled down and cleaned for use in the downstream gas engine. Heat recovered in the cooling process is, again, used for the district heating system. A special technology permits to recycle all residuals, which means that the gas cleaning process generates neither waste nor effluent.

The gas engine converts chemical energy contained in the product gas into electricity. Again, waste heat from the engine is fed into the district heating system. This approach results in very high efficiencies: electric efficiency ranges between 25 and 28 %, overall efficiency (power and heat) is approx. 85 %.

On account of the favorable properties of the product gas (no nitrogen, high hydrogen content), there is a broad range of possible uses, such as the generation of fuel gas, synthetic gas, gasoline and diesel, methanol as well as hydrogen.

The various research projects currently conducted in Güssing address topics such as the generation of hydrogen, fuel cells, the production of methane and fuels, cooling and district heating systems and aim to test and implement new technologies. The overall objective consists in the development of energy centers meeting the demand of the region, and which are able to produce heat, electricity, gaseous and liquid energy carriers from a variety of energy-rich biogenic raw materials and residue matter using an approach called polygeneration. The quantities produced of the various resources will depend on the needs and the size of the respective region. The relative proportion of the various by-products cannot be changed infinitely, it is true, but modifications should be possible within certain limits.

The experience gained in the biomass plant Güssing gave rise to a number of research projects, which were realized in cooperation with various Austrian and international partners in the fields of science and industry. Some of the projects have already been realized in Guessing, others are at the stage of planning or on the verge of implementation. The strategy for the period between 2007 and 2013 aims to implement the concept of "polygeneration".

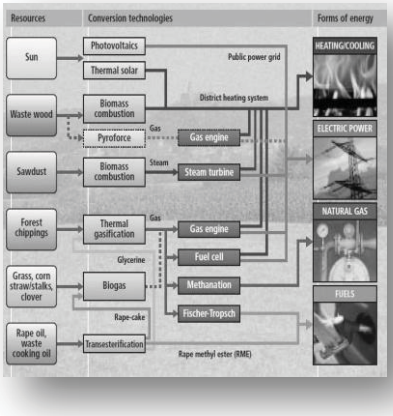

Fig. 1 Concept of "polygeneration"

MOST SIGNIFICANT PROJECTS

Energy Center Güssing

The "Energy Systems of Tomorrow" subprogram aims to promote the development of energy centers meeting the demand of the region, which are able to produce heat, electricity, gaseous and liquid energy carriers from a variety of energy-rich biogenic raw materials and residue matter. Biomass gasification is a suitable basis for the production of various energy products from biomass. The appropriate combination of various processes is to facilitate the generation of heat, electricity, synthetic natural gas (BioSNG), and synthetic fuels (Bio FIT fuels). Fundamental research by means of laboratory - scale experiments has already defined various process designs. A technological and economic evaluation of the potential of these developments has already shown promising results. A second phase of the project aims to further develop and optimize individual process steps in realistic simulations. Work concentrates on process steps for which there are no suitable solutions on the market. One focus is on the Fischer-Tropsch synthesis for fuel production, because the need for research in this field is still higher than that for methanation. Research results will permit a scale-up to demonstration plant size.

Bio-SNG (Biological Synthetic Natural Gas)

Research on the generation of methane has been conducted in cooperation with PSI (Paul Scherrer Institute, Switzerland). The first step in this process consists in separating part of the synthetic gas (CO+H2) generated by means of fluidized steam gasification. In a second step, methane is synthesized from this Bio-SNG. The methanation reactor itself is a stationary fluidized bed operating in a pressure range from 1 to 10 bar. A 1 MW demonstration plant producing up to 100 m3 of Bio-SNG per hour will be directly attached to the Biomass CHP plant in Güssing.

Mixing Wood Gas and Biogas Bio-Fuel Production

At present, other researchers at Güssing are investigating the possible combination of thermal and biological gasification. They aim to develop a concept for the installation of a biogas plant with a pipeline to the existing thermal gasifier; they also work on the fundamentals for the requisite cleaning and mixing plants with the goal to develop marketable products (gas, gasoline, and diesel fuel).

Optimization and Further Development of Biomass CHP Plants

Research in the biomass plant Güssing also includes the further development of feedstock conveyance, the variation of the bed material, and the use of additives for targeted control of gas quality. Other goals consist in extending the range of usable feedstock, simplifying gas cleaning, and the optimization of the gas engine in order to reduce capital and operating costs. This research is being supported by the EU's "Big Power" project.

Fuel Cell Technology

On account of its low nitrogen and high hydrogen content, the product gas generated in the process used in Güssing is very well suited for the use in fuel cells. Currently researchers concentrate on gas cleaning processes and have already performed first tests with fuel cells. These tests are being realized in cooperation with the Austrian Bioenergy Center and the University of Trondheim, Norway.

Independent energy system of Güssing

Meanwhile, Güssing has won also international recognition as an energy and biomass center. There is consensus to further develop the successful model in the future. The next aim will consist in extending the model and to cover the whole district of Güssing by the end of 2010. Within the "Energy Systems of Tomorrow", project participants are developing a concept, which, after implementation will ensure energy supply for the entire district, which relies on renewable energy sources exclusively. This requires to ascertain the energy demand in the region and to identify demand distribution as well as the individual demand sectors. An important factor in self-sufficient energy supply refers to the availability of the necessary land area for energy crops. Thus, the first part of the project aimed to ascertain, at the level of municipalities, whether the available land area is sufficient to cover energy demand. This provided for a quite accurate assessment of focal points of demand and an evaluation of potential sites. The sum of the land area balances at the level of individual municipalities will result in a land area balance for the whole region. In a next step, researchers analyzed the energy demand in the region and ascertained the capacity of renewable energy sources actually used today. The analysis of the energy saving potential and existing resources has also been conducted at the level of municipalities or parts of villages. These findings served to identify suitable technologies and to develop energy supply scenarios for the district; researchers also calculated the potential for CO2 reduction. In order to ensure an efficient supply with biomass, a special logistics concept has been developed, in analogy to the one for the town of Güssing. Research work done so far has shown that, in principle, *self-sufficient energy supply* for a region the size of the district of Güssing is actually feasible. At present, the overall energy demand of the district amounts to 564,777 MWh (2005); the plants existing today already cover as much as 34% (power), 49 % (heat), and 47 % (fuels), enerrespectively of the demand with renewable energy sources. Project participants modeled five different scenarios that permit 100 % of the demand to be covered with energy from renewables only. A look at potential resources and suitable conversion technologies shows that full use of the forestland would offer the largest land reserves. Depending on the scenario, the remaining land reserves would range between 13,000 ha and 14,000 ha; this means that, even with self-sufficient energy supply implemented, some 30 % of the district's surface area remain as reserve for additional demand in the future. A complete shift to renewable energy sources would reduce CO2 emissions in the region by some 85 %, i.e. to 15,530 tons per year. These findings were used in the follow-up project to identify potential sites and possible approaches toward implementation, to

perform cost / benefit analyses, and to develop financing models. Implementation of the concept is expected to afford numerous synergies – as was the case in the town of Güssing – that can have a positive effect on the development of the region. Shifting energy supply from fossil to renewable energy sources could create added value on the order of Euro 39 million. Other objectives include an improvement of the situation on the job market, new opportunities of training and further education, and enhanced self-confidence of people in the region. New opportunities could arise in the fields of tourism, cultural activities and sports. These sustainable stimuli could create a model region and a role model for other areas, which might adopt such concepts as well.

STRATEGIC PLANNING – COMPARATIVE ANALYSIS AMONG AUSTRIA AND SERBIA, CENTROPE REGION

Protić, B.; Spasić, T.; Nikolić, T.; Jevtić, N.; Gajić, A.
University Belgrade, Faculty of Geography, Department of Spatial Planning

The aim of this project is to show the differences between strategic planning in Austria and Serbia and to provide basic characteristics of the region CENTROPE.
At the beginning of the work, are given basic information about strategic planning in general as well as information about the development, adoption and the importance of strategic documents. The concept of Region, as the basic spatial unit in the spatial planning, is also explained.
The following section describes the system of strategic planning in Austria. Its national, provincial and local levels of planning and a system of regional planning and its differences with respect to Serbia. Below are the main characteristics, historical and demographic data and information about the state of transportation in Vienna and its subway system, as well as detailed information about the system of planning and urban development of the Vienna metropolitan region.
Related to the Vienna-Bratislava region, this paper provided the basic environmental, economic-functional and demographic characteristics. Shown is the state of infrastructure and accessibility, the state of regional economies and cross-border connections and, at the end of this part, are given visions of strategies and policies for the establishment of cross-border region.
At the end of this project, which is dedicated to the CENTROPE region, is explained the development of the region and given all the information - about the position, size, population, economic development, mutual (cross-border) cooperation between the regions that make up Centrope, the importance of science and the number of scientific institutions and universities, and finally, quality of life.

STRATEGY AND STRATEGIC PLANNING OF SPATIAL DEVELOPMENT

Development strategy is a document which main goal is directed on improving the quality of life of people in the region. This should be achieved by contemporary actions of economic, social and environmental factors and by using their own resources and potentials with cooperation with neighboring and distant regions.

Strategic planning as a process that precedes the creation of development strategy means development of actions' system to be taken in the near or distant future, with activity of certain instruments and system control on the basis of previous analysis and conclusions about the problems, possibilities and limitations of the region. These actions should enable the protection, regulation and development of potentials and values of specific territory. At the same time it is very important that the spatial, economic, social and environmental aspects of creating a strategy agree. This is an important prerequisite for achieving sustainable development of the region. It should also emphasize that the strategy to contribute to the development of the whole community needs to balance and reconcile a variety of interests in the region, which is in place to minimize conflicts that arise as a result of the different interests of various stakeholders in the planning. If we add the reality and flexibility in the design of a strategy, as well as during its implementation, given that over time in space, nature and society are significant changes taking place, we can expect a document that will provide to the city and its region a significant profit in the future.

Vertical and horizontal coordination of planning activities in a particular area is also one of the most important preconditions for its further development. For this reason it is necessary to consider the current planning documents of higher order (European strategic documents, national plans, regional and other plans) to define their vertical interdependence and conditionality, and to ensure that the new plan will fit. Horizontal coordination refers to the better space integration that would make possible interregional (cross-border and trans-regional) cooperation and collaboration in the region.

The link between strategy and real life are the measures, instruments and politics for the realization of strategic objectives. Without these strategies would remain only a sum of ideas and solutions that can't be applied because of the strong forces of resistance, the interests and motives that stand against them and seek to operate in space for their own and out of general interest.

Measures and instruments can be divided into five groups, in the following way:

- Legal measures and instruments - that adjust rules of behavior in space. This refers to the fact that any solution in the strategy must be in accordance with the regulations and has to respect existing planning documents.
- Financial measures and instruments – represent the review of the scope of necessary funds for the implementation of a project, sources of funding, the organization of resources and the dynamics and distribution of received funds.
- Economic measures and instruments - represent the land, economic and investment policies that should create

favorable conditions for successful business and investment.

- Organizational measures and instruments - enable implementation of strategies and implementation of individual solutions. Strategy may propose to establish an institution that will be responsible for the implementation of the strategy and its periodic updating.
- Technical measures and instruments - contribute to the realization of objectives of the strategy.

The entire planning process should be transparent and should allow the participation of all stakeholders in the area (citizens, experts and politicians) at every stage of planning. Disclosure of the region to the surrounding area provides a compliance of actions with the neighboring regions. Responsibility for the successful or unsuccessful implementation of strategic documents in this way is properly distributed.

REGION – BASIC SPATIAL UNIT IN THE STRATEGIC PLANNING

Nowadays, thanks to the process of urbanization, cities are the engines of development in space. However, they can't be studied and developed independently without its regional hinterland. Between the city and its environment is established circulation of people and goods which has a mutual interest direction and expresses a connection that has significant functional, social and economic ties that are unbreakable. What connects the settlements in the system are independent functions of each of them that they are able to transfer to surrounding (usually smaller) settlements. The functions of cities are characterized by the intensity of the impact on the area on which basis the functional urban areas are formed. Channeling of these functions and measuring their relationships is the subject of strategic planning which aim is to direct them in the way to be as useful as possible for the whole community. Because of the increasing dichotomy of developed and peripheral regions, there is a tendency toward space organization that will contribute to the polycentric development. Polycentric development is based on the regional balance and equality in order to reduce regional disparities. This means that the inhabitants of any part of the territory should have the same conditions and opportunities to meet basic needs.

The region is complex spatial entity which represents the basic spatial unit in the strategic planning. Region is an area with the same or similar attributes related to the various criteria that can define it more closely. Thus, regions can be formed on the basis of many different criteria. Some of them are administrative boundaries, natural elements of space (relief, climate, hydrography, etc.), physiognomy of the landscape, economic structure, common problems, needs or interests of smaller territorial units, functional relations based on the organization of production, markets, consumption and services, etc. Region represents the most effective way of articulating interests in a particular territory and it is flexible for the implementation of different forms of cooperation. Regionalization involves the transfer of certain functions and authorities on smaller territorial units (process of decentralization) to enable greater participation of citizens in decision-making and facilitate finding solutions that are accepted by the majority. The basic idea is that a decision should be made by those who are most affected by this decision.

Fig. 1 Regions in Austria
Source: http://wikitravel.org

Strategic documents should provide increased:

- Identity
- Charm (attractiveness)
- Accessibility
- Competitiveness.

The identity and attractiveness of the city and its region represent their possibility to stand out in comparison to other cities/regions and attract attention. In order to achieve those, cities/regions should find their own unique characteristics that would be recognizable in the wider area. The identity of the city/region (brand) could be based and built on a variety of features such as name, history, reputation, environment, culture, tourism and events, people, actions that takes and that represent it, or characteristic material products. Identity is also important for the individual sense of belonging to the city/region that occurs in each of its inhabitants. The brand of the city could be based on the past of the town/region, its present or its planned future.
Accessibility of the region is a matter of its traffic accessibility and the coefficient of communication, as well as other tangible and intangible links. Mobility, openness to the surrounding area and the attractiveness of the region contribute to its accessibility and open up the possibility of its economic progress.
Strengthening competitiveness and activation of the territorial capital opens up the need for association of neighboring or further regions (on the basis of interest) and cooperation in order to solve common problems or the realization of common goals.

Below we will present the planning system in Austria, as well as some examples of strategic planning applications that we had the opportunity to meet during our stay in that country.

SPATIAL PLANNING SYSTEM IN AUSTRIA

Austria is a federal republic, administratively divided into nine autonomous states (provinces): Burgenland, Carinthia, Lower Austria, Upper Austria, Salzburg, Styria, Tyrol, Vorarlberg and Vienna. Each of these states is divided into

districts, and districts consist of municipalities. When it comes to spatial planning and regional policies, responsibilities are divided among three levels of government: national, state and local level.
The responsibilities in the field of spatial planning are not precisely defined by the Constitution, so that the current situation is based on the division of powers and responsibilities on each level of planning. So planning is coordinated action of the Government, states and municipalities at the national level. The planning system is done by the hierarchical principle, which implies mutual compatibility of plans and regulations of the lower-level planning with the plans and regulations of higher level planning, but the objectives and content of planning differ on all the three administrative levels.

National level

Austrian Government issue regulations in certain sectors and there is no necessary constitutional legitimacy, which refers to the comprehensive planning at the national level, so there is no national spatial plan in Austria. The main objectives and principles of the national spatial, economic and regional development are set in the "Austrian Spatial Development Concept" which is made every 10 years and it is only a recommendation and not of binding nature. To create the "Austrian Spatial Development Concept" is the task of Austrian Conference on Spatial planning - Örok[1] and that is the only institution in the field of spatial planning at the federal level. Örok was founded in 1971 to improve this coordination in this complicated system of shared responsibilities. It has only advisory functions and presents a consultative body in terms of spatial development of Austria and its states.

Fig. 2 Administrative provinces in Austria
Source: www.maps-of-austria.co.uk

State level

State level is the most important in the system of planning, because only the states can make laws on spatial planning. Only the federal states are authorized to produce comprehensive plans and define objectives which are binding for all subordinate planning authorities. They also have their responsibilities in regional planning and regional economic development. State laws on spatial planning define all the measures, procedures and instruments which must be used at three levels of planning: state, regional and local planning. Except for Vienna, which is both a state and the capital, all the states are independent in terms of regional planning for the parts of their territory and rely on its own planning laws of each state. The practice of producing plans and spatial development schemes differs from state to state. Planning instruments are the State Planning Program and regional spatial - planning program.. Besides the spatial - planning program, states and their regions must make sectoral programs. At this level, plans and programs are usually made for geographical areas for which spatial planning policy is necessary.

Local level

Municipalities occupy a central place in spatial planning, local level is the only level that is responsible for spatial plans that cover the entire country and it is also in a good position in terms of development policy. The Constitution provides them with the right to produce, review and implement spatial plans at the local level. Municipalities have the freedom in the economic sense and can function as economically independent units or they can merge with others municipalities and create microregions. The instruments for local spatial planning are defined in the spatial planning acts of the States. Municipalities are responsible for the implementation of three inter-related spatial - planning documents: the plan for spatial development, land use plan and the plan of building regulation.

Regional planning in Austria

e A good strategic position of Austria has contributed to the development of this country. Austria is at the crossroads of Central Europe and is one of the Danubian countries, and through many tunnels the Alps are now easily passable, which contributes significantly to the development of this country. The Republic of Austria is a member of the European Union since 1995 and is one of the richest and most developed European countries.
According to the fact that it is a member of the European Union it is important to mention that Austria takes care of the interests and of spatial development at the European level, which is primarily reflected in the intensive horizontal cooperation with countries in the surroundings. Regional programs of the European Union are implemented by the European Commission, the Federal Government of Austria and the States.
All the programs of the European Union are being implemented with the help of agencies that are responsible for directing development programs with the financial support provided by the European Union through the Structural Funds. The formation of the regions in Austria is based primarily on common cultural and economic characteristics of different parts of the states and municipalities, and in contrast to our country, these regions are not administrative units with a common administrative rule, but are defined in a completely different and more flexible way, taking care at the same time of the identity and attractiveness of the

[1] ÖROK – Österreichische Raumordnungskonferenz

region, accessibility of the region, establishment of a joint bid with neighboring regions, while striving for the uniform implementation of territorial development. Compared to ours, regions in Austria are much smaller, more functional and therefore suitable for implementation of joint strategic goals, and often have cross- border character.
The principle of regionalization is based on a bottom-up principle, that is, from local and regional to the national level. Regions are mainly formed by the market and functional on principle. There are usually several municipalities united around a joint bid on the market. Cooperation between municipalities is encouraged by the State and European Union with corresponding financial measures.
For the development of the regions that have a cross-border character, it is important to formulate the appropriate development strategies that would promote the cooperation between regions with common interests and then assist in the achievement of common objectives in the regions in terms of better quality of life.
It is important to note that cities are the first bearers of the development in Austria, and although each state has achieved a higher level of development in relation to our country, we should bear in mind that Austria is still a centralized country, with extreme dominance of Vienna (from 66% of the population living in urban areas, 27% live in Vienna). Vienna, with its metropolitan area is still a compact unit that does not have the appropriate counterpart in the surrounding area although it has long been aiming for decentralization. Therefore, this region shows the best results in the realization of development strategy and in terms of cross-border cooperation. The best example is the region of Vienna - Bratislava that make the Vienna region (Burgenland, Lower Austria and the City of Vienna) and the Slovak region (city of Bratislava and Trnava), which has about 3.5 million inhabitants.
Compared with our country in addition to better financial position and help provided by the European structural funds, the main advantage of Austria is reflected in the proper use and management of natural, social and economic resources as well as in proper understanding of space and community needs which can be noticed even at the local level.

VIENNA METROPOLITAN REGION

General characteristics

As it was previously mention, Austria is divided into nine federal units. One of the federal units is Vienna, which is also the capital of Austria. Vienna is located on the one of the busiest waterways in Europe, the Danube River. This has greatly helped the development of this city. It can be said that the city is located in the border area, close to several countries. The border with Slovakia is situated only 40 km, and the Czech and Hungarian border is nearly 50 km. To the nearest seaport, which is on the Adriatic coast, is only 350 km. Thanks to it's geographical location in the heart of Europe and it's past, Vienna now has a great potential for development. The town is a link between the eastern and central / western Europe, which leaves room for the development of partnerships and business relationships.

Vienna is situated between the Alps in the west and the Pannonian Plain in the east. The average hight is only 160 meters, and city is located in the continental climate with average annual precipitation of 600 mm. West of Vienna is the Vienna wood, which is of great importance for the city, because under the influence of the western flow (west-east direction) wind brings the city a fresh and clean air. Thanks to this Vienna has a very good kvalitat air. The government has in the past recognized the importance of forests and protect this area in the past. Because Vienna is one of the greenest cities in Europe, with 50% green areas, as forests and parks. East and south of the town is a fertile plain, which represent the basis for the production of agricultural goods.

The historical and demographic characteristics

Historically the city has long tradition, and name of the city is mentioned in the Roman period before some 2500-3000 BC. The biggest development, growth and the largest building Vienna experiences during the Habsburg monarchy, especially after the long resist the Turkish siege in the 17th century. At the end of the fifties of 19th century ruined the city walls and the city joined the 34 villages that used to be located outside urban areas. At that time, Vienna was one of Europe's largest cities with 430,000 inhabitants. Immediately after the First World War in the city lived in, urban area, 2.2 million, a major problem was the lack of housing stock. Since 1922. 'till 1986. Vienna, in addition to the capital of Austria, was the capital of the province of Lower Austria (Niederösterreich) and the Vienna headquarters of the federal units. This has contributed to the dominance of Vienna, in the economic and administrative sense, as in great concentration of population. Vienna is the smallest, but the most populous federal unit. Population by the middle of the eighties of last century, fell slightly as a result of suburbanisation or relocating residents to the territory of Lower Austria, Burgenland and reduced migration of the population. Since the fall of the Berlin Wall in 1989. and the outbreak of war in Yugoslavia 1991st The city again recorded an increase of population. For only seven years, respectively in the period 1991.-1998th the metropolitan area of Vienna to increase the number of people for about 110 000 And in the future we should expect an increase in population, and the number of people to 2021. year should reach 2.4 million. By increasing the number of people should come because of the immigration of foreigners, and natural increase. Intensive development of Vienna, which has attracted a quarter of the population of the country, made country without medium-sized cities. The second largest city is Graz, followed by Linz and Salzburg.

As for the educational structure of the citizens of Vienna, it shows that an increasing number of people have completed high school or college. Such information is important to know in order to see that the intellectual capacity of the city. Today, approximately 20% of citizens older than 15 years, has completed higher education with further growth trend. Resion of increasing the number of educated personnel can be found in the fact that children of immigrants better conditions for education than their parents, who usually have lower educational qualifications. The number of

households in Vienna metropolitan region is about 970 000, it can be concluded that living in one household 2.17 persons. In the period between the 1981 and 1991. there was an increase in the number of households, a similar process has continued over the next decade.

Traffic in Vienna

According to data from 1991. the number of the company was at 71 000. of the total number of companies only 23% are located in the metropolitenskoj region, and 77% of the urban area, so concentration of jobs are also present. A large proportion of employees working with the employer (94%), and only 6% were self-employed. The concentration of jobs made that only a small number of employees, only a fifth, is around Vienna. All this contributes to the fact that Vienna is the most important center of employment in the whole region and beyond, which is reflected in the large daily migration to the city center. As a result, Vienna has a well-developed transport network that is consistently, systematically, further expanding and improving. Through 35% of all streets passes at least one public transport line. With these results the city has one of the best transportation system in Europe. Total length of the street network is 2800 km. Metropolitan area is well connected with neighboring Bratislava, according to which in 2007. opened a new modern highway.

A large number of people travel each morning to the city, which caused heavy traffic collapses. For 1000 comes around 400 cars. Like other European cities, Vienna also has problems with parking places, and is therefore in central parts of the city is introduced a system of short-parking zone while for people traveling from metropolitan areas, Vienna offers a special parking space in parking lots that are located near the starting station of the public transport, especially metro.

Metro system is in the public transport system, and currently has five lines with the desire to build sixth lines. Metro is fully under-ground except for a short above-ground part of a single line. Overall length of Vienna's subway is 69.5 km and every day 1.3 mil. passengers is carriedday. Metro operates within the range of 2 to 5 minutes, which is especially important in the peak hour in order to avoid traffic collapse. Since one part of the Danube is channeled through the center of the city, coast through the channel are connected by 35 bridges, which speeds communication between the two.

Planning system in Vienna

Vienna is a federal unit, also province and local government and therefore has a special position in the planning and administrative structures. Laws relating to the protection of nature and the environment are also under the jurisdiction of provinces. In practice, a large number of autonomous planning system leads to problems when it comes to plans that work for the border regions or areas which are divided between the two provinces.

Because of these problems occur, the laws were brought at the level of the whole federation. These laws relating to environmental protection, planning, roads and railways, water and forest protection and economic legislation. Vienna Federal unit has not given up opportunities to have their own law on planning. Planer action in space and space planning included only the "Vinna's law on construction". Many powers are transferred to the regional legislation on local self-government. Local governments and cities independently rules on their budget and can invest in various projects, but if it does not conflict with the interests of the federation. Provincial budget is full of taxes from citizens and from money received from the federal budget. Citizens and NGO's have the right to participate in making regional plans.

Vienna's urban development plan is subject to regional development and spatial plan. Urban development plan from 1994. The predicted development of the green corridor. The plan provides: protection and improvement of urban urban tissue that has developed over time, the development priorities within the city and review the development potential of the city, reducing unnecessary traffic chaos with the development and improvement of public transportation, preservation and protection of green and recreational areas.

Considering the fact that Vienna is also the local government and province, different planer problems are solved at different levels of government. As with other provinces, zoning and development plans exist as a legal framework for spatial planning.

Large demand for housing in the early nineties of the twentieth century, led to the expansion of urban areas in different ways. Already 1984th plan of urban development has contributed to the development of guidelines for the future.

VIENNA-BRATISLAVA REGION

The basic spatial and economic-functional characteristics of the region Vienna-Bratislava

Vienna-Bratislava region is jointly developed through history, as related to settlement and social system, although in some periods, the two parts were under different authority of the central administration (the Austrian Empire and Kingdom of Hungary). However, links between the two parts were visible after the fall of the Austrian monarchy. After the Second World War, the emergence of a new order in Europe, good relations of the two parts were interrupted. And these relations remained until the end of the eighties of the twentieth century.

Throughout history, Vienna-Bratislava region was under the influence of its position in Europe. It is located in "geographical center" of Europe, on a site with favorable natural and geomorphological conditions. Several dominant geomorphological formations in area of Europe is confronted in this region (Alpine and Carpathian ranges, Pannonian Basin, the river Danube). Historically, this phenomenon has designated the main (north-south and east-west) routes and links with other parts of Europe. The main axis in the region will be strengthened by renewed diagonal connections across Europe, which will be of even greater

significance for the changing geopolitical and economic conditions. In relation to the political and economic changes in Central and Eastern Europe, the area of the Vienna-Bratislava region is becoming an important area for the revival of relations between East and West. This area is moving the focus of interest not only of national importance, but also of the entire European interest - as a hub from which new connections will be, through individual countries, enabled through Europe.

The importance of the Vienna-Bratislava region in Europe is documented by the German Ministry for Regional Planning, Construction and Urban Development in Bonn in February 1994. The document "Policy planning in the European context". In this document, this region is integrated as one of seven centers (agglomeration) of the highest importance in Europe. The importance of this region is increased by the fact that many Trans-European corridors are going through this area, which increases the attractiveness of the view of the accessibility and links to other important centers and agglomeration in Europe.

Demographic characteristics

In 2001, in the central zone of the Vienna-Bratislava region, lived about 2.9 million inhabitants, with the district of Trnava, Lower Austria and Burgenland, the total population of the region reached 4.5 million. On the territory of the region, which includes 10% of the total territory of Austria and 13% of the territory of Slovakia live one-third of Austria and more than a quarter of the Slovak population. One of the main characteristics of this region is a typical urban-rural disparity. Both capital cities have a weak economic environment, for example - Wienviertel and southern parts of the District of Bratislava and Trnava. These regions are closely related to central cities, especially migrants living.

Region	Area km²	Population
Austria	83.858	8.032.557
Vienna	415	1.562.123
Region of Vienna	6.405	2.276.774
Slovakia	49.033	5.379.455
Bratislava	367	428.672
Bratislava Region	2.053	599.015
Vienna-Bratislava Region	**29.754**	**4.533.514**

Tab. 1 Population and land area in the region of Vienna and Bratislava (2001)
Source: Austrian background report for the OECD-Review 2003 and Assessment and Recommendations of the OECD (2003)

In recent decades, the demographic development of Vienna and Bratislava showed clear differences. Vienna's population has stagnated or declined in the decades after World War II, while Bratislava and its surroundings have experienced very dynamic growth. In the period 1991-2001 the city of Bratislava was losing population at the expense of suburban areas as a result of the suburbanization proces and reduction of immigration from other Slovak districts. This also resulted in the overall population decline and reducing the overall migration in the city. In contrast, 1990 the population of Vienna is growing again thanks to immigration from the traditional countries of origin of migrant workers and more refugees from former Yugoslavia.

Regional economies

In their countries, Vienna and Bratislava are the economic and employment centers. They clearly represent a central position in terms of population size and level of economic activity and development.
The level of socio-economic development in individual regions is characterized mainly an indicator of the regional gross domestic product (GDP), which also is the starting point in formulation of regional policy at EU level and at state level. Indicators that are used follow methodology of EUROSTAT, created for NUTS II and NUTS III levels.

Region	GDP €	GDP/per capita €
Bratislava	4189	6789
Slovak part of the region	6233	5336
Vienna	54451	34055
Austrian part of region	87795	25636
Vienna-Bratislava Region	**94028**	**20473**

Tab. 2 Regional GDP in the region of Vienna and Bratislava 1999 in Slovakia and 1998 in Austria
Source: Austrian background report for the OECD-Review 2003 and Assessment and Recommendations of the OECD (2003)

Previous table shows the level of GDP reached in the cities of Vienna and Bratislava determines the level of economic development in the region analyzed. Vienna has the highest concentration of economic activities in the region, where GDP per capita 63% above the EU average. But Bratislava is almost reached the EU average, while the Burgenland and Trnava below the EU average.

Accessibility and infrastructure

Slovak region
Transport in the Vienna-Bratislava region is based on road and rail transport.
Regarding the road infrastructure, is scheduled to be completed highways on the territory of Bratislava and to build a so-called "zero ring," which will include the construction of a new border crossing north of Bratislava.
The new rail routes across the border areas, on the Slovak side, will not be built, but it is considered to start the modernization of current trends, located along international corridors.

Austrian region
The situation in the Vienna region is, in terms of infrastructure, on very high level, despite the fact that region for decades had a peripheral location. The situation in the region, in the Danube corridor, requires an infrastructure that will provide accessibility to roads, rail and river traffic. Air

accessibility is guaranteed by the international airport at Schwechat, which is also of great importance as the airport in the line of communication between the European East and West. In the future it is expected to improve cooperation and communication between the airport, Schwechat and Bratislava. This will be achieved by building highways and high-speed railway that will connect the two airports.
As for road transport in the area of Vienna, the problem of insufficient volume and represents the capacity of roads in the region, which is manifested every day in traffic jams on the primary road network, especially in peak hours. In the next few years is expected to be worsening these problems, due to increasing motorization, continuous expansion of settlements and increase the volume of traffic in the EU.
The railway network in the Vienna region is relatively developed. Double-track railway in the Danube corridor (east-west) and Westbahn currently extends to four-track railroad, which will also connect the east with the western part. In order to improve relations with its eastern part, it is necessary to build a railway between the station Wien-West and Wien-Suedbahnhof to enable a direct traffic through the city of Vienna.

Cross-border links
In contrast to the situation of infrastructure in Austria, there are serious shortcomings, especially along the road between Vienna and Bratislava. Both roads are to Bratislava at least in some areas, federal roads with two lanes.
Vienna - Hainburg - Berg - Petralka - Bratislava: This link is a bit short and most of the way with two lanes. Passenger cars passing through the center of Hainburg, a system of one-way road with traffic lights. In addition, there are further istotočni transit routes in these directions.
Vienna - Parndorf - Kittsee - Petralka - Bratislava: About two-thirds of these links go along the Austrian motorway A4, while the rest of the way with two lanes.

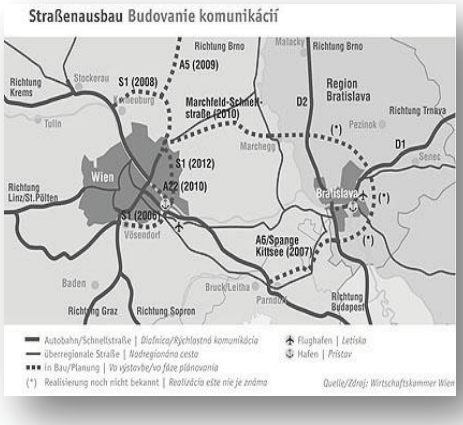

Fig. 4 System of communication between Vienna and Bratislava

Visions for the creation of strategies and policies of cross-border region

Official common vision for the region Vienna-Bratislava,doesnt exist, but there are initiatives that try to develop strategies for cross-border cooperation. An important step in this direction was the signing of "Declaration Kittsee in autumn 2003. Governors of Burgenland, Lower Austria and Vienna, and mayors of cities of Bratislava, Trnava, Sopron, Gjora, Bruno, Polten and declared their desire to establish close co-operation in Vienna and Bratislava regions.
The following scenarios have been developed in study of the regional development of Bratislava. They deal with the general perspectives of development of the region and trying to identify possible alternatives to the development of the region, from the point of view interregional and cross-border connections.

Scenario: "Vienna agglomeration"

Based on the analysis of internal and external factors, the potential for economic development and economic attraction of the Vienna region, can be expected tendency of marginalization in the Slovak part of the cross-border region, with one-sided orientation of Vienna. This process will be similar to that which occurred in Vienna as a step towards his own area, threatened with a tendency of relocation of economic activities in economically poor areas in the region. This process will be limited in the Vienna region, due to the barrier location. Bratislava region has reached a high level of development and thus become competitive Vienna region. This trend has positive aspects, especially for a quick and relatively short-term effects. Enterprises and government municipalities and cities are not only accepted this trend, but also supported it from their own financial reasons. This trend is a trend for the Vienna agglomeration, in the sense that it will be more monocentric structures in the region of Vienna and Bratislava.

Scenario: "Vienna-Bratislava region"

On the basis of influencing factors and potential opportunities for dynamic development of cross-border region Vienna-Bratislava, there are prospects for the implementation of the development trend of functional homogenous urban region, characterized the socio-economic potential of Vienna and Bratislava. Coordinated activities targeting the public sector, administrative bodies, companies and NGOs can help to create economic conditions needed to achieve a functional balance based on decentralized form of settlement. This trend should formulate a scenario more bipolar region Vienna-Bratislava.
From the standpoint of long-term development of economic fundamentals, structure settlements, environment and quality of life of residents of this region, it would be that the regional development policy based on the scenario, Vienna-Bratislava region.

These cooperation initiatives are important first steps for the region, but due to the further development (soon to be one metropolitan region) we see that there are no common binding mechanism. It is, therefore, necessary to establish cross-border institutions, witch will jointly develop policies and implement them in a productive and coordinated fashion.

CENTROPE REGION

The federal provinces of Vienna, Lower Austria and Burgenland, South Moravian region, Bratislava and Trnava region and Győr-Moson-Sopron County, make up CENTROPE region and the place where more than six million people live.
About six and a half million people live in eight provinces, regions and the federal provinces, which make up the central European region. The position of the region, at the crossroads of four countries and four languages in contact, is reflected in huge differences of partner regions and cities.

Two of the capital Bratislava and Vienna, as "twin cities" at a distance of only 60 kilometers from each other, Brno and Győr as additional cities of supra-regional importance, as well as many other vital and attractive cities are engines of economic and cultural expansion of the European region. Central European region combines a strong partner that ideally complement each other and - even more collectively than each of them individually - provide a better quality of life, more opportunities, greater creativity, higher growth and open more opportunities.

History Events

For the partner regions and cities of this region, after the fall of the Iron Curtain and the opening of borders 1989th The return marked the beginning of the route. The countries of the region can look to the long common history. Only the political events of the 20th this century, which divided the social, economic and culturally integrated region in the area divided by the borders. European turnaround since 1989 brought a historic opportunity for the current CENTROPE to return from the periphery to the center.
Open borders and the enlargement process - the sign of the EU accession of Austria 1995th and the Czech Republic, Slovakia and Hungary in 2004 - Have led to significant changes and the creation of the Central European area. Today, all the partner regions and cities are part of the European Union, apply the same European laws, are an integral part of the same internal market, using the same programs and funds and representatives of European institutions are the same.

CENTROPE as a crossroads and the region of science in the territory of Europe

Convenient location and a growing market makes CENTROPE, for economic and investment processes, space that offers excellent opportunities for large international corporations and small and medium enterprises. It is located at the crossroads of important European transport corridors and offers an effective and very important international airports, which CENTROPE offers excellent access and a short connection to all European key markets. Measures to close existing gaps and eliminate bottlenecks in cross-border transportation networks, as well as to accelerate the modernization of existing infrastructure, for the foreseeable future, will further improve internal and external accessibility.
CENTROPE features a huge number of research institutions and institutions of higher education, which represent a valuable potential for the future development of the region. For example, it is situated 25 public universities and art academies, as well as numerous special research facilities, universities of applied science, innovation centers. Today, research and educational institutions of the Central European region, collaborate in many ways. Working together, they can grow into the region of knowledge in the area of higher education and research.

Area with great economic and investment prospects

Economically, the region of Central Europe and its inhabitants are among the main beneficiaries of the enlarged EU. The region also offers the possibility of exploiting the competitive advantage due to cross-border economic activities that are performing at a very small area. Intensive economic growth and substantial foreign direct investment are clear evidence of a strong international orientation of the region and cities in it.
CENTROPE region is growing and has enormous potential. At the same time, the Austrian side in the partnership adds one of the most urban agglomeration in Europe. Growth and prosperity in the region of Central Europe is based on stable and firm foundation, rooted in its long tradition as a site of industrial production and services, with high-skilled population, exceptional educational institutions and a reliable system of social insurance.

Opportunities for Cooperation

For people in the region, this new location in the heart of the enlarged Europe, marks a fundamental change in the situation. The possibility of intense cross-border cooperation - and the regional and local level - creating a completely new conditions for what one can imagine, plan and do. For the municipalities, cities and regions, in past times non-existent freedom and challenges arising from their geographical proximity to the demanding task given the goal of shaping a common future.
Investment in cross-border cooperation made as a result of innovative and imaginative solutions in all areas ranging from economy, politics, art, culture, science and education in the field of environmental protection. Cooperation strengthens the region and creates a new sense of belonging while encouraging cooperation CENTROPE throughout central, eastern and southeastern European region. CENTROPE meets all the requirements to become a region that provides residents with the economic benefits and better quality of life, and provides a haven for science, culture and prosperity. However, in order to take advantage of this opportunity, efforts must be focused on all aspects, in particular, should pay attention to the possibilities for cross-border cooperation.
Since 2004, the joint efforts and cooperation in the CENTROPE conducted under the terms of the EU. The result of the elimination of almost any restrictions, has opened great opportunities for even closer cooperation in the solving of social and economic problems, promising greater prosperity and wealth for all. In subsequent years, the people in the region will use the same currency, cross the border without any restrictions or checks and have access to a fully liberalized market.

Hardly exists any other region, which in terms of quality of life, can be rival to CENTROPE. Areas along the Danube, Morava and Thai as well as green lungs of the region, foothills of the Alps and the Carpathians, and Lake Neusiedl is only the most striking parts of the mosaic, often intact natural landscapes of the Central European region. Close links between culture and entertainment in cities, on the one hand, and recreational values - no less than four national parks, unique landscapes created by people and countless sports and leisure opportunities in the natural environment in the region, on the other hand, make CENTROPE a place with the top quality of life.

Ambiguous cultural events, which combine a number of famous events and festivals throughout the world, with a creative international artistic communities are one of the most important aspects of the CENTROPE region. Central European region can be proud of, carefully preserved, and still dynamic cities that are under UNESCO protection (8), well-known theaters, music halls and festival, as well as a wide range of museums that are guaranteed to be the interest of any visitor. Together, they are inheritors of rich cultural heritage. For all these reasons, CENTROPE is defined as a meeting point in the heart of Europe, set to touch the different language areas, which attracts companies, people and ideas from all over the world. Quadrilateral, which is incomparable mix of culture, nature and urban space, pleasure and joie de vivre, creativity and love for art. In all these areas, CENTROPE eligible to become one of the most dynamic and attractive places to live European.

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TOURISM AND CULTURAL HERITAGE

Živanović, S.; Petrović, M.; Jurošević, J.; Šaula, V.; Todorović, B.
University of Belgrade, Faculty of Geography, Department of Spatial Planning

Our time in Austria and neighboring countries has helped us to learn more about their culture, cities, spatial development, town and rural planning, sustainable tourism etc. There were many interesting places, villages, castles, monasteries and natural beauties on our excursion. We also heard many essential things about spatial planning, rural development, cultural heritage and regional cooperation from Austrian specialists.
Tourism and cultural heritage are important things for future development of different areas. In Austria, there are several types of tourism. There are many historical sites, cultural monuments and natural beauties. We visited beautiful Wahau valley and enjoyed in small towns, villages, landscape and Danube River. On the other side, we saw magnificent Vienna and its culture and architecture. Our trip to Bratislava revealed us old part of the town with well-kipped buildings and spirit of the old times. We also visited medieval castles Lednice and Valtice in Slovakia. The development of tourism is very important for every country. Tourism has the power to activate different local potentials. We saw that in National Park Neusiedl See. We also learned the meaning of transnational cooperation between several countries and regions for its future development.

TOURISM AND CULTURAL AND HISTORICAL HERITAGE AS THE BASIS FOR THE DEVELOPMENT OF THE AREA

Austria has great tourist potential. It is primarily based on the rich historical heritage, beautiful cities and the cultural and historical monuments, mountains and winter sports but also in parts of the southeastern border, the Danube Valley, the settlements built in a specific spirit, vineyards and wine and so on.

According to some statistics, the number of tourists visiting this country is increasing from year to year. Culture, history and untouched nature are just some of the things that attract more visitors. Tourism development is one way to improve the situation around the area. Tourism, as well as economic sector, contributing to improving the overall economy of a country, make great income, allows for further investment in other activities and it is a circular process that eventually gave positive results.

Culture is a society ever since, leaving traces of their existence in the form of cultural heritage, which are both monuments, as well as stories, songs and folk games that are transmitted from generation to generation. Heritage includes the material and spiritual culture of a people. The cultural heritage of each country is immeasurable wealth.

Representative buildings tell us about ancient times, allowing us to see the development of a specific territory through different historical epochs and to share the wealth with others, use for tourism development and activation of certain areas. Different cultural monuments and complexes have been the factor that attracted large numbers of people, providing the basis for the popularization of the area as well as for tourism development.
Tourism has been the primary means of cultural exchange, because he just lets tourists experience related not only to the past, but also the contemporary cultural and social life over the visit. From the interactions that occur in meetings of tourists with local people created a new communication methods, new knowledge and new values. In a time of globalization, fostering cultural diversity among nations is increasingly important.

NEUSIEDL AM SEE – IMPACT OF A NATIONAL PARK IN THE ACTIVATION OF LOCAL RESOURCES

In the area between Austria and Hungary, in the border area is Neuisiedler See, one of the most popular places to holiday in Austria. Area of about 747km2, of which about 315km2 area lakes, the area about 240 km2 of Austria and Hungary over 75km2, while the lake belt of reeds. This is the first national park in Austria, which is between chervil, salt ponds and small lakes and wetlands is one of 850 UNESCO protected areas worldwide. The area is covered with a reed, is an ideal refuge for birds that nest there. Bird-watching is just one activity that gives room to the lake.

There are many cities that are located around the lake. All of them offer a lot of different events during the stay. For nature lovers there is the observation of birds, animals, a multitude of water sports such as sailing and windsurfing, which are becoming increasingly popular and a trademark of this area.
Also for hedonist there is a number of the specialties in which they can enjoy, as well as top quality wines, which are produced here.

It is very important sites of this national park. Border territories and its propagation in the areas of both countries has created favorable conditions for the development of cross-border cooperation and the creation of good relations among neighbors. Various projects, programs and studies, one of Austria and Hungary on the other hand, trying to improve the condition of the national park, preserve the environment and make the area more attractive to visitors. The number of tourists is constantly increasing, which speaks of the success of their actions.

National Park to its positive actions affect the activation potency at the local level but also in the wider area that surrounds it. Continuous

development and progress leading to the fact that parts of some national parks, towns and villages, unused area of the territory to become attractive for foreign investment and various kinds of investments that lead to improvement of the whole area.
Investments lead to many other positive actions. This is primarily to create new jobs as a good way to attract a young population and workforce. Therefore, in this region creates a better place to live, better living standards and good conditions for the progress of each individual.

Achieving sustainable tourism development, tourism, where the maximum is reached, the environment, natural and cultural value of the historical monuments and still provided a permanent economic development, is one of the primary tasks of the European Union and many documents related to the just resolution of this complex task.

The leaders of the national park, the mayors of surrounding towns and experts in this field by working together they managed to become an example of how a protected area can be used for the development and improvement of the whole territory.

CULTURAL AND HISTORICAL DEVELOPMENT AND THE DEVELOPMENT OF TOURISM IN THE REGION OF BRATISLAVA

Bratislava is the capital and largest city of Slovakia. It is only 60km from Vienna to the nearest major cities in Europe. The boundaries of the city almost reaching the state border with Austria (4 km) and Hungary (13 km).
On the east bank of the Danube stands the famous old kernel, and in the western part of the modern city. It has always been one of the cultural centers of Central Europe. Today, the most important industrial and cultural center of Slovakia.
Centuries as a center of culture Bratislava abundant number of valuable buildings, which are mostly located in the old part of town that is the principal place of rich cultural events throughout the year.
During the reign of Maria Theresa in the 18th Century, Bratislava became the largest and most important city in the territory of present-day Slovakia and Hungary. During this period the population tripled in the town were built many new palaces, monasteries and other buildings.
After the First World War and the establishment of Czechoslovakia, the city became part of the new state despite resisting its representatives. Only after a divorce velvety 1993rd The Bratislava became the capital of the new Slovak Republic. In the period after independence the city was developed, mainly due to investments that have come from abroad.
Bratislava is now an example of proper management of cultural heritage and to the growing tourism. Cultural heritage is based on the rich history and a representative architecture. It is the basis of regional, national and European identity. These are resources which in this case Slovakia used the right way and directed them towards the development of tourism. Bratislava space inhabited different cultures, nations and religious groups. Development is primarily achieved by increasing the value and protection of cultural heritage, which later became an important resource for tourism.

This is evident from the increased interest in travel arrangements with cities such as Bratislava, which became one of the centers with architectural and historical and modern, urban curiosities. The biggest obstacle to solving the problems of countries such as Serbia's mainly availability of funds.

It is therefore essential to identify clearly defined areas of interest and programs of the expected strong economic reversal (re-use of buildings that have real value, thus justifying the cost of restoration, the possibility of collection of revenue from tourism, etc.).

The year 2006. in Bratislava, there was a 77 accommodation facilities (including 45 hotels) with a total capacity of 9940 beds. The city was then lodged 686201 tourists, of whom 454870 were foreigners. A large number of visitors to the city make a one-day tourists.

The largest number comes from the Czech Republic, Germany, Great Britain, Italy, Poland and Austria. Some new facilities, as well as offer low-cost airline companies and low prices, bring in Bratislava more visitors than before. Due to its position today Bratislava transportation hub. The city is a modern road, rail, river and air hub, enabling the quality and accessibility for the development of the whole area.

CULTURAL AREA – LEDNICE AND VALTICE

Cultural heritage has always been associated with the development of tourism and the impact on the development of the area where it was. Visit Lednice and Valtice castles in the Czech Republic have allowed us to identify the best way and we see the connection.

Lednice

On the bank of the river is shared, between Brno and Prague, not far from the border with Austria, is located in Lednice castle. The entire complex includes the castle and a spacious park in the English style that surrounds it. It is also the largest park in the Czech Republic, as a whole covers 200 km ². At the site of today's palace all to 16 century there was a Gothic fortress in which the members of the old European dynasties Liechtenstein stayed (with minor interruptions) until the Second World War. In the 16th century, the fortress was turned into a Renaissance castle, and designed by the Vienna architect JB Fischer van Erlach.
Its current appearance thanks to the reconstruction of the castle from the 19th century (the 1846th - 1858). you get the modern Neo-Gothic buildings look. The uniqueness of the castle is reflected in the unusual wooden staircase of the entrance hall, engraved from one piece of wood and no supporting pillars, built into the wall, and a large chandelier with 116 candlesticks, heavy 690 kilos.
Leads to the palace wide path through the lavishly decorated garden. There is a greenhouse with different types of flowers and plants. During the visit, we had organized the tour of the park which is located in the castle. Arranged cyclically wrap path Castle, on its way through the forest with rich

foliage, the water, over wooden bridges. The visitors are enabled various facilities such as boating and driving coaches.
Park managers difficulties associated with the rich only kill beavers that logs to the extent that the tree after the tree izgrizu from all sides of itself down zakrči water and roads. And in the water and around it there are several mini-islands, where their habitat found birds, mostly swans.

Fig. 1 Lednice castle

Spacious gardens in Versailles style, later made ponds and beautiful trails leading to a kilometer from the castle, to the minaret, the only outside the Islamic world. One of the rarities of this region, the work of architect Josef Hardtmutha.

Since the sandy soil was unstable for its construction, the foundations were made of wooden poles. Tall minaret tower ends with the crescent moon, and as to it water tight spiral staircase, the opportunity to view the minarets have only the most persistent.

Valtice

A few kilometers away from the castle of Lednice, there is a smaller castle Valtice area of the same name, almost right on the Czech-Austrian border. The current baroque appearance of the castle comes from half of the 17th century.

Its interior is rich with unique pieces of furniture, and dopremljim ordered some from the Far East. Liechtenstein in Valtice stayed until 1945. when they left the castle, referring to him the most valuable items. Lednice and Valtice is from 1996. The listed UNESCO World Heritage Site.

WACHAU DANUBE VALLEY – UNESCO PROTECTED AREA

A UNESCO is a specialized organization of the United Nations Educational, Scientific and Cultural Organization, established in 1946th year. One of his primary goals is to sponsor projects and programs that support international agreements on the preservation of world cultural and natural heritage, and the places and objects that are important to the entire world community.
In the list of World Cultural Heritage, the 2000th , under UNESCO protection in Austria, among others, is the Wachau Valley. It is a picturesque valley of the Danube, one of the most common tourist destinations in Lower Austria, and is situated between the towns of Melk and Krems.
Long is 30 km and inhabited since prehistoric times. This short section of the Danube, only 36 out of 2800 km, he was due to its diverse geographic structure of important cultural monuments and ukomponovanih small urban areas, historic cultural areas with special significance. Nature, such as a wavy valley of the Danube, forests that adorn the coast, the rough stone cliffs and people shaped elements, such as water terraces, typical villages and fields, monasteries, castles, ruins, complement each other harmoniously.
A number of buildings with excellent view extends from the monastery of Melk through the castle and ruins Schönbühel Aggstein, Dürstein and Hinterhaus until much visible Göttweig monastery. It is well known place that attracts tourists is Dürstein, where, according to legend, Duke Leopold V held in captivity English King Richard Lionheart.

The valley is known for growing grapes and apricots. Thanks to the Danube, and the sunlit slopes of the special quality of the country, the Wachau valley grow excellent grapes from which wines are made valued around the world.

Wachau Valley tour, we were witnesses to the valorization of cultural heritage tourism as an important element shows partial preservation of indigenous culture, and thus the recognition of a city, region, state. In addition, this tourism not only to affirm the cultural values already achieved a significant financial effect, which is often very much positive effect in the local economy.

Krems – historic center

Krems is a town in Lower Austria, situated in the northern part of the country, about 70 km away from Vienna. It was established in the strategically important eastern end where the branches of the Alps touch the river Danube. Krems is known as a city with a very well-preserved old urban core. He is one of the most beautiful in Europe. City of Krems on the Danube is the gate of Wachau Valley. Gozzoburg is the oldest castle, situated in the medieval part of Krems. It represents the most popular tourist uses in the City. Many legends and stories were created in the vicinity of the castle which was built in 1250th by the rich and esteemed Duke called Gozzo.

It has been recently renovated and opened to the public only 2008th year. Some parts of this trap is used for special occasions, in organizing birthday parties, seminars, conventions and so on. Its facilities can be seen during daily visits, only accompanied by a guide who carries visitors experience the Middle Ages. The main roads lead through Ketring Chapel, the Palace Hall, the old kitchen and other rooms in which we are sure themselves.
The most beautiful thing of the castle are the frescos, which restoration in progress. Walking through the castle can feel the spirit of the Middle Ages, to find out information on the responsibilities of the church, Duke Gozzou and its role in the history of the region.

Stift Melk

Danube valley turns a small place, each in its own way, full of unique architectural buildings. One of the first places where the Danube enters the

Wachau Valley and Melk, a town with the dominant part of the Benedictine monastery, one of the most famous monastic house in Europe.
Visible from several kilometers away, this complex of buildings is certainly enticing tourists to discover his tour of historic events that took place in this region. Within the fort, on a hill with steep slopes of the Danube, is the baroque Benedictine monastery, the room is full of pompous, it has a rich medieval library, the fascinating monastery so on. Everything in this city can see the evidence and the intellectual life and political importance of this place in the past.

Fig. 2 Stift Melk

This small city in the historical writings first mentioned 831st year for the past 1000 years the spiritual and cultural center of the country, first as a castle Babenberga, and then from the 1089th a Benedictine monastery. From 12 century school was associated with the monastery, so that the valuable manuscripts created and collected in the library.

The monastery was built between 1702nd the 1738th year. Today, visitors to this complex can get great walk through time in the Palace Museum and understand important historical facts of this place. Historic tour begins with the words of St. Benedict around a wooden table, and then continue through the rooms that vary with the design and display all the ups and downs through a long history.

RURAL DEVELOPMENT AND VILLAGE RENEWAL

Živanović, S.; Petrović, M.; Jurošević, J.; Šaula, V.; Todorović, B.
University of Belgrade, Faculty of Geography, Department of Spatial Planning

Rural development and village renewal is very important part of Austrian spatial planning. There are also many studies and documents with these themes in European Union. Austria, like almost every other European country, has a lot of unused potential in their rural areas.
The main goal of planning is to recognize these potentials and to activate them to become productive. The most important part of this issue is agricultural development and land use, preservation of rural population and village renewal. The high-quality transnational cooperation and regional support are one of the main goals in these rural development politics.
Different countries had to work together to achieve territorial improvement.

RURAL DEVELOPMENT POLICY IN AUSTRIA

Rural areas are developed in different ways but generally the situation in many rural parts of Austria, as well as in other European countries has worsened in recent years. The main problems that occur are low income from agriculture, leaving rural economies and the departure of the agricultural population in cities, as well as the aging rural population, which results in unused fertile land, completely deserted villages and abandoned household. There are several factors that have contributed to the deterioration of the situation . One of them is a bad financial situation and increased foreign competition in agriculture. The second factor is not regulated ownership of land. The third factor is the negative impact of industrialization and changes in structure of activity.

Today, rural development a priority policy for improving the spatial structure, economy and society, as in many European countries, and in the area of Austria. Planning of rural settlements and the space within them must allow the private farms to be economical activated. In the same time, it should provide an adequate standard of living increasing number of non-agricultural population who choose the life closer to nature but, still, in terms of so called suburbs. Regulations and practices of rural planning should become differentiate and more flexible at the same time consistent in maintaining the inherited cultural values of rural settlements.

Also, the central settlement should provide a higher level of service in their community service and to perform an organizational function and promoting economic structural changes.

Structural changes must be rural priority policy objective of spatial development. It is necessary to the proper distribution of the economic base of rural areas. To achieve this, they have to promote activities such as processing of agricultural products, development of small and medium-sized industrial and service development company. Tourism is an important supplementary activity, especially because it contributes to the efficient marketing and promoting the rural economy. Forestry, in terms of rural development, is an important multi-purpose activity, which may contribute to the further development of certain areas. An important prerequisite for rural transformation is the restructuring of rural vocational education, which so far has been primarily agricultural-oriented.

Vocational training and education, especially in rural areas, must benefit from the development of information society. Telecommunications provide many opportunities in the areas of sparse population and peripheral areas. Rural policy must take these and other features and benefits that may lead to some progress and prosperity.

However, rural transformation does not mean the support given only non-agricultural activities. Taking into account the large share of agricultural employment and personal income loss caused by the decline in agricultural production, rural development problem can be solved without increasing productivity and personal income earning opportunities in agriculture.

Rural restructuring can not be achieved within the individual, the individual rural settlements. Villages should be associated with the development of other settlements, first with those urban settlements that are the centers in their environment. Central and regional governments should support this cooperation, assistance, primarily, associations and joint projects over the settlement.

Rural local authorities should have much more important role in structural transformations than before. They must work out arrangements for providing social assistance to old people who live in small and scattered settlements. The primary objectives of the infrastructural development of rural areas should be improvement of the approach areas, to eliminate gaps between the achieved level of development of water supply and sewerage networks, energy networks and network landfill waste. new regulations should apply planning and construction in rural areas and the existing plans of settlements should be revised so that, if necessary, adjust the new circumstances.

It is necessary to introduce new laws that will regulate land use and protection of nature, and also take into account the new conditions privatization and small-scale agriculture.

VILLAGE RENEWAL

Rural development is a key instrument for restructuring the agricultural sector. An important

role in the development of the game to encourage innovation in rural areas, and developed information and communication technologies.

Rural Development Programme for Austria aims to promote competitive and environmentally sustainable agricultural sectors. Subsequent state for special services to farmers and preserve funds for maintenance of property are also important items of encouraging rural development. For the period 2007.-2013. the measures for rural development financed by the European Agricultural Fund for Rural Development (EAFRD). Rural reconstruction program focuses on three thematic areas which are actually three groups defined by the objectives of rural development:

- Improving the competitiveness of agriculture and forestry;
- Improving the environment;
- Improving quality of life.

Improving competitiveness is one of the primary objectives for the development of rural areas. Increased competitiveness in agriculture and forestry has led to the popularization of these areas. Specific actions and educating the population of these areas can make a place with very favorable conditions for life.

Healthy environment is the prerequisite for any form of development and progress. Improving quality of life implies the existence of a healthy and preserved environment, filled with social and social conditions and economic development based on the principles of sustainable development.

RURAL DEVELOPMENT AS A BASIS FOR REGIONAL DEVELOPMENT – FEHRING AND STADTSCHLEINING

Renewal of rural areas, as Serbia, and Austria, is one of the basic tasks of spatial planning policy and these countries. One problem of Serbia in terms of the rural development is the historical legacy of the urban-rural relationships and major social and economic differences of urban and rural, and rural settlements with each other.

During this stay in Austria, we had a chance to visit the village of the Austrian province of Burgenland, is familiar with government policy regarding rural development and reconstruction of the village. Burgenland has always been the agricultural area. In the near past, especially due to the unfavorable position of the border, remained most undeveloped part of Austria and a number of residents moved to bigger cities. This is a trend that is going in Serbia so that the two situations are comparable to mutual advantage of the experience to solve problems.

During the tour of the village, we had the honor Fehring introduced Dr. Robert Lukesch, who was our host. Dr. Lukesch is a political consultant for evaluation of regional development and OEAR consultant. We had the opportunity to hear from him about rural development in Austria. We first visited Fehring, and then see how our host arranged his estate and has organized his life in the village. Austrian residents of rural areas have similar problems as well as residents of villages in Serbia. These are mostly insufficient income from agriculture, thus leaving the village and go to the bigger towns and cities, and insufficient cooperation between the settlements. Serbian villages have with this low level of development, structure, employment, personal income level, education level and low level of development of municipal facilities.

Fig. 1 Dr. Robert Lukesch house

Fig. 2 Dr. Robert Lukesch explaining to students how he use reinwater in his house

Austrian ideas for rural development mainly involves the formation of micro-region that would include six to seven villages. It should not be obliged to share, but recommended better planning for future development. These micro ensure better distribution of public services, organize social activities and various events, improving existing and building new infrastructure, better organization of environmental protection and so on. Fehring area has a problem of excessive expansion of forests, which also addresses a variety of planned actions in order to finally solve the problem and preserve forest fund.

This part of Austria is a place with very good soil for the cultivation of certain cultures, such as, for

example. vine and in accordance with these recent years has developed vineyards and wine production. Increasingly transferred to the production of organic food, take care about the quality of foods that are produced and most important task is to reach the awareness of farmers, educate them and get to know the advantages and privileges that can be obtained from the state.

One of the ways the development of rural areas is an example of Stadtschleining, where in 1988. by the Austrian Science Center for Peace and conflict resolution (ASPROM) and the Austrian UNESCO Commission established the European University Centre for Peace Studies (EPU). The first semester was held at the Hotel Burg Schlaining. Later, the EPU Schleining gets space in the trap, and becoming more and more we will post those awarded for peace, human rights and democracy. The mere establishment attracted a large number of students, and with it the knowledge and capital. The state has supported the development of the University, which opened the way updates Stadtschleining.

Planning of rural settlements and within them, above all, it must allow the private farms to be economical activated. At the same time, to ensure an adequate standard of living increasing number of non-agricultural population. When rural planning role of the state is required to achieve development, and at the same time, preserve the inherited cultural values of rural settlements.

THE IMPORTANCE OF USING RENEWABLE ENERGY SOURCES - GÜSSING

The province Burgerland, in the southeastern part of Austria, right near the Hungarian border is a city Güssing. Before the 20 years, the province has been very poor and underdeveloped part of Austria, Güssing least developed municipalities in the region. At that time the population engaged in agriculture, production of maize and sunflower and trees and selling the products provided for himself means of living. Bearing in mind the unfavorable geographical location, in the border area and the fact that there were no infrastructure facilities that connect this place with the rest of the country, there is a fact that there were no jobs for the local population. All these factors have led to high rates of migration of the population in neighboring regions, and Vienna.

Reversal in the region began in early 90's when the city is located in a very difficult situation and was unable to pay the electricity bill. Then it is ordered to cease all building use of fossil fuels. The whole Reformation began in 1992, Peter Vadász choice for mayor, who hired Reinhard Koch to make any assessment of benefits can have a small city like Güssing of natural resources. Koch was at that time just completed his studies and did not see myself traveling to Vienna to work. The first step was to stop using fuel fosilnjih in public buildings in the city, and power consumption reduced by 50%. The first was built of wood burners, and plant rapeseed for conversion into fuel. Originally it was a common heating system for 27 homes, and in 1996 was the heating system extended to the whole city. Many scientists are interested in the whole world come here to learn something new and eventually apply this successful model in their countries. Güssing is a great example for many similar facilities around the world.

Taking into account the difficult economic situation, in which this region has only two decades placed, clearly we see what is the importance of including the potential that this area has. Measures not only fail to solve the problem in which Güssing then found, but have also triggered new jobs, even open about 50 new enterprises with more than 1,000 jobs. Not only that, but it is activated and industry that locate in these areas because of the reputation they have today. Today Güssing a highly developed sense of natural resources and primary care of the forests in order to have secured the future of renewable energy sources. Numerous patents on a daily basis improve, develop and implement, as in the field of solar energy, as well as the use of biomass.

All of the above facts have led to the development of eco tourism and bring more revenue this vast city. Numerous visitors from all over the world after the visit, returning to his home full of enthusiasm and desire to make their cities and make something so big and important as the city Güssing done.

REGIONAL AND CROSS BORDER COOPERATION

European space is interlaced transnational economic, social and political processes known as "globalization", "internationalization" and "spreading to the east." The process of European integration are the main reason why the spatial impacts of development are important not only to solve national and regional level. Spatial integration implies convergence of different geographical areas and regions.

This means that greater permeability of borders and their abolition in certain cases. The joint regional policy in terms of establishing a solid trans-European transport and telecommunications networks, the definition of agricultural policy, environmental protection, ensuring smooth and rapid flow of people, goods and information affect spatial development and management capacities at national, regional and local levels. Therefore, in recent years, there was awareness that the spatial development can not be realized without close cooperation between the sectoral policies of different political levels at European, national, regional and local levels.

The goal is to create a harmonious developed through the territory of polycentric urban development, new relationships between urban and rural area, easy and equal access to infrastructure and knowledge and rational management of natural and cultural heritage. Achieving the aims and general objectives of balanced and sustainable spatial development means and cross-border, transnational and cross-collaboration. Examples of this cooperation still has a lot. Our visit to a member of the European Union and neighboring countries enabled us to realize the true meaning of regional and cross-border cooperation.

We have seen that it is possible to co-operate in almost all areas of life in order to achieve uniform

economic, ecological and social development. Concrete examples that we see are related to tourism development, joint development of infrastructure systems, compliance in almost all fields of development, the integrated nature conservation and work to achieve the best possible standards. Erasing borders, activation often neglected border areas, linking with neighboring countries, sharing of resources and preservation of cultural identity, an area the goals of modern development and spatial planning in the area of the whole of Europe.

P A R T I C I P A N T S

ACADEMIA DANUBIANA

CURRICULUM VITAE OF PARTICIPANTS IN ALPHABETICAL ORDER

Name: **Bojan Blagojević**

Current status: Student of spatial planning
Contact: Address: Jurija Gagarina 84/3 Belgrade
Phone: +381646356258

Email: kajmak1@yahoo.co.uk

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
French – basic

Computer skills : MS office, Internet, AutoCad, Video Pad Video Editor, Sound Forge

Short Biography:

Date of birth: 12.08.1986. Belgrade, Serbia

2005 -	Faculty of Geography in Belgrade,Spatial planning department
2001 – 2005	Zemun Gymnasium,mathematical department Faculty of Geography in Belgrade,Spatial planning department
1993 - 2001	Primary school "Uzicka Republika"

Name: **Djordjević Aleksandar**

Profession / current status : Msc, Assistant
Contact: University of Belgrade Faculty of Geography
Address: Studentski trg 3/III, 11000 Belgrade, Serbia
Phone: +381112637421

Email: adjordjevic@gef.bg.ac.rs

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently

Computer skills : MS office, ArcGIS, Internet, AutoCad, Corel Draw, PhotoShop

Short Biography:

Date of birth: 09.09.1979. Belgrade, Serbia

04.2009 -	Ambero consulting Beograd GIS consultant
03.2009 -	Republic spatial planning agency, Belgrade GIS Consultant
02.2007 -	Faculty of Geography, University of Belgrade, Belgrade Assistant
10.2004 - 3.2007.	GeoGIS Konsultanti, Belgrade, Serbia GIS Consultant
10.2004 - 3.2007.	Faculty of Geography, University of Belgrade, Belgrade Co-Worker as a Scholar of the Ministry for science and technological development

Name: **Gajic Aleksandra**

Current status: student

Contact: Address: Veljka Vlahovica 4/2, Smederevska Palanka, Serbia

Phone: +(00)381631821250

Email: gajicaleksandra@ymail.com

Personal skills and competences

Languages : Serbian – mother tongue

English – fluently
French – basic
Spanish – basic

Computer skills : MS office, Internet, GeoMedia Professional (basic), AutoCad (basic)

Short Biography:

Date of birth:	16. 12. 1989. Kragujevac, Serbia
2010.	Participant of the excursion - "Global, regional and local aspects of spatial planning in Central Europe"
2010.	Participant in the development of magazine for spatial planners "Prostor"
2009.	I volunteered at the 25th summer Universiade in Belgrade.
2008. –	Faculty of Geography in Belgrade. Currently third year of studies, at the Department of Spatial Planning.
2004. – 2008.	High school "Palanacka gimnazija"
2000 .- 2004.	Member of the volleyball team in elementary school
1996. – 2004.	Elementary school "Heroj Radmila Siskovic"

Name: **Jevtic Nemanja**

Current status: Student

Contact: Address: Vojvode Hrvoja 5
Phone: +381606455409

Email: jevtiq89@yahoo.com

Personal skills and competences

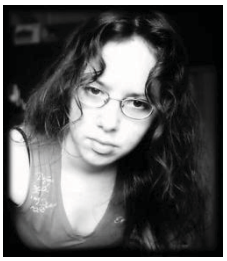
Languages : Serbian – mother tongue

English – fluently
German – basic

Computer skills : MS office, Internet, AutoCad

Short Biography:

Date of birth:	28. 01. 1989. Belgrade; Serbia
2010-	Participation in the development of "PROSTOR" magazine
2004-2008	Participated in the geographical section of the gymnasium
2004-2008	Participated in the english section of the gymnasium



Name: **Jovic Marija**

Current status: Student

Contact:
Address: Svetog Save 55, Nova Varos, Serbia
Phone: +(00)381643947032
Email: id.entity001@gmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently

Computer skills : MS office, Internet, Adobe Master Collection , AutoCad

Short Biography:

Date of birth: 20.02.1987. Nova Varos, Serbia
2006 - Faculty of Geography in Belgrade, Department of Spatial Planning
2002 - 2006 High school
1994 - 2002 Elementary school

Name: **Jurošević Janja**

Current status: Student

Contact:
Address: Ismeta Mujazinovića 11\4, Beograd
Phone: +(00)381644220763
Email: janja_jurosevic @hotmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – good
Russian – good

Computer skills : MS office, Internet, AutoCad, ArcGis

Short Biography:

Date of birth: 28.06.1985. Milići, Bosna i Hercegovina
2010 Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"

Name: **Kablar Danijela**

Current status: Student

Contact:
Address: Ratnih vojnih invalida 54/32, Belgrade
Phone: +(00)381642025488
Email: danijelak82@gmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
Russian – basic
Greek – basic

Computer skills : MS office, Internet, Adobe Photoshop, AutoCad, Corel Draw

Short Biography:

Date of birth: 30.06.1982. Belgrade, Serbia
2003 - Faculty of Geography in Belgrade, Spatial planning department
1997 - 2001 The Third Belgrade Gymnasium
1989 - 1997 Primary school "Stevan Sremac"

Name: **Marić Miroslav**

Profession / current status : Bsc Spatial Planner

Contact: Highway Institute Belgrade
Address: Kumodraska 257, Belgrade
Phone: +381112458555
Email: misamaric2004@yahoo.com

Personal skills and competences

Languages : Serbian – mother tongue
English – good

Computer skills : MS office, Internet, Corel, AutoCad, Photoshop, MapInfo

Short Biography:

Date of birth: 29.09.1974. Belgrade, Serbia

2008 - Serbian Spatial Planners Association - vice-president

1993 - 2000 Graduated Spatial Planner, Faculty of Geography, University of Belgrade, Departman of Spatial planning

2000. - Highway Institute Belgrade

Name: **Mošić Vladan**

Current status: Student

Contact: Address: Laznica, Žagubica , Serbia
Phone: +(00)381642510651
Email: mosicv@hotmail.com

Personal skills and competences

Languages : Serbian – mother tongue
Italian – fluently
English – good

Computer skills : MS office, Internet, AutoCad,ArcGis

Short Biography:

Date of birth: 05.06.1985. Požarevac, Serbia

May, 2010 Scientific and professional meeting on Ivanjica
Theme: Planning and normative protection of space and environment

April, 2010 Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"

January, 2010. - Co-editor of magazine "PROSTOR", vol. 17 and vol. 18

December, 2009 Participation in production of the Spatial Plan of Republic Serbia

April, 2009. Scientific and professional meeting on Palić
Theme: Planning and normative protection of space and environment

Name: **Nevenić Marija**

Profession / current status : Ass.Msc

Contact:
University of Belgrade Faculty of Geography
Address: Studentski trg 3/III, 11000 Belgrade, Serbia
Phone: +381112637421
Email: marijanevenic@hotmail.com; marija9@sbb.rs

Personal skills and competences

Languages :
Serbian – mother tongue
English – fluently
French – fluently

Computer skills : MS office, Internet, ArcGis, AutoCad, Adobe Photoshop, Dreamweaver

Short Biography:

Date of birth:	09.09.1977. Belgrade, Serbia
2008 -	University of Belgrade Faculty of Geography, Assistant.
2006 - 2008	Master of science in spatial planning
2006 - 2008	University of Belgrade Faculty of Geography, Assistant trainee
2002 - 2006	Collaborator at the Institute for spatial planning at Faculty of Geography
2002 - 2006	Bachelor of science in spatial planning

Name: **Nikolic Teodora**

Current status: Student

Contact:
Address: Svetog Save 16/3, Čačak, Serbia
Phone: +(00)38162595566
Email: teodoranikolic7.08@gmail.com

Personal skills and competences

Languages :
Serbian – mother tongue
English – fluently
German – basic
Spanish – basic

Computer skills : MS office, Internet, Adobe Photoshop, AutoCad, GeoMedia Professional

Short Biography:

Date of birth:	12. 10. 1989. Čačak, Serbia
2010	Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"
2010	Participant in development of magazine for spatial planners "Prostor"
2008 -	Faculty of Geography in Belgrade. Currently third year of studies, Department of Spatial Planning
2004 - 2008	Gymnasium high school
1996 - 2004	Elementary school "Vuk Karadžić"

Name: **Obradović – Arsić Danijela**

Profession / current status : MSc, Assistant

Contact: University of Belgrade Faculty of Geography
Address: Studentski trg 3/III, 11000 Belgrade, Serbia
Phone: +381112637421

Email: danijela@gef.bg.ac.rs

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
Russian – good

Computer skills : MS office, Internet, Photoshop

Short Biography:

Date of birth:	06.09.1976. Belgrade, Serbia
2006. – 2010.	PhD thesis: The importance of medical-geographical factors in space planning and protection in Serbia
2004. -	MSc Degree in Spatial planning
2001. – 2004.	Postgraduate studies – Field of study: Environmental planning and protection
2001. -	Works at the Faculty of Geography as an assistant on courses in Environmental planning, Urban ecology, Medical geography
2000. -	BSc degree in Geography
1995. – 2000.	Faculty of Geography

Name: **Petrović Marijana**

Current status: Student

Contact: Address: Olge Đurović 97, Užice , Serbia

Phone: +(00)381642289050

Email: marijanaue@gmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
French – basic

Computer skills : MS office, Internet, AutoCad,ArcGis

Short Biography:

Date of birth:	08.05.1986. Užice, Serbia
April 2010	Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"
2009 - 2010	Participation in production of the Spatial Plan City of Užice
June, 2009.	Summer school of urbanism on Zlatibor Theme: Discussion about of place and role participator in new laws
April, 2009.	Scientific and professional meeting on Palić Theme: Planning and normative protection of space and environment
March- May 2009.	GIS Project Seminar, Faculty of Civil Engineering University in Belgrade, Faculty of GeographyUniversity in Belgrade, Technische Universitat Munich, City of Subotica and GTZ
April, 2008.	The Seminar "Austrian and Serbian Spatial planning" at Vienna University of Technology

Name: **Protic Branko**

Current status: Student

Contact:

Address: Vasariste 37, Kikinda, Serbia

Phone: +(00)381641930053

Email: brankoprotic@hotmail.com

Personal skills and competences

Languages : Serbian – mother tongue

English – fluently

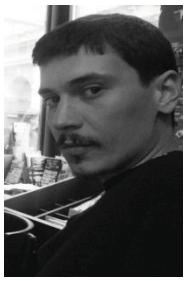
German – basic

Spanish – basic

Computer skills : MS office, Internet, Adobe Photoshop, AutoCad, GeoMedia Professional

Short Biography:

Date of birth:	27. 2. 1989. Kikinda, Serbia
2010	Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"
2010	Participant in development of magazine for spatial planners "Prostor"
2008 -	Faculty of Geography in Belgrade. Currently third year of studies, Department of Spatial Planning
2004 - 2008	High school "Dusan Vasiljev"
2005 - 2007	Younger associate in geology courses in the "Petnica Science Center" in Petnica.
1996 - 2004	Elementary school "Djura Jaksic"
1998 - 2004	Elementary music school "Slobodan Malbaski" - instrument guitar
1997 - 2001	Member of the Scout Detachment "Kosta Sredojev-Sljuka"



Name: **Radović Milan**

Current status: Graduate student

Contact:

Address: Vidikovački venac 12,Belgrade, Serbia

Phone: +381628402832

Email: radovic_serbia@hotmail.com

Personal skills and competences

Languages : Serbian – mother tongue

English – fluently

German – basic

Computer skills : MS office, Internet, AutoCad,ArcGis,Surfer,FME, Photoshop, InDesign, Quarkxpress

Short Biography:

Date of birth:	12.03.1987. Leskovac, Serbia
May, 2010	Scientific and professional meeting on Ivanjica Theme: Planning and normative protection of space and environment
April 2010	Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"
January, 2010. - December, 2009	Co-editor of magazine "PROSTOR", vol. 17 and vol. 18 Participation in production of the Spatial Plan of Republic Serbia
April, 2009.	Scientific and professional meeting on Palić Theme: Planning and normative protection of space and environment
March- May 2009.	GIS Project Seminar, Faculty of Civil Engineering University in Belgrade, Faculty of GeographyUniversity in Belgrade, Technische Universitat Munich, City of Subotica and GTZ
April, 2008.	The Seminar "Austrian and Serbian Spatial planning" at Vienna University of Technology

Name: **Šaula Vanja**

Current status: Student

Contact:
Address: Cara Dušana kratka 21, Inđija, Serbia
Phone: +(00)38163209460
Email: tvanja86@yahoo.com

Personal skills and competences

Languages :
Serbian – mother tongue
English – good

Computer skills : MS office, Internet, AutoCad

Short Biography:

Date of birth: 26.02.1986. Indjija, Serbia

2010 Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"

Name: **Šećerov Velimir**

Profession / current status : Dr. Ass. Prof. University of Belgrade Faculty of Geography

Contact:
University of Belgrade Faculty of Geography
Address: Studentski trg 3/III, 11000 Belgrade, Serbia
Phone: +381641167978
Email: app2000@eunet.rs

Personal skills and competences

Languages :
Serbian – mother tongue
English – fluently
Russian – good

Computer skills : MS office, Internet, Corel, AutoCad, Quarkxpress

Short Biography:

Date of birth: 10.06.1968. Belgrade, Serbia

2007 - University of Belgrade Faculty of Geography, Ass. Prof.
1999 - 2007 University of Belgrade Faculty of Geography, Assistant
2005 - 2009 UN-HABITAT, Project "SIRP", National Senior Expert in ILD team
1996 - 1999 Serbian Urban Planers Association, expert assistant

Name: **Spasic Tanja**

Current status: Student

Contact:
Address: Sestre Popovic 3/4, 37000 Krusevac
Phone: +381604447897
Email: spasic.tanja0@gmail.com

Personal skills and competences

Languages :
Serbian – mother tongue
English – basic

Computer skills : MS office, Internet, AutoCad

Short Biography:

Date of birth: 26.09.1988, Krusevac, Serbia

2010. - Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"

2008. - Faculty of Geography in Belgrade, Department of Spatial Planning

Name: **Stanković Igor**

Current status: Student

Contact: Address: Kosovska 41, Ćuprija , Serbia
Phone: +(00)381622664535
Email: stankovic_igor@hotmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – good
German – basic

Computer skills : MS office, Internet, AutoCad,

Short Biography:

Date of birth: 21.08.1986. Ćuprija, Serbia

2010 Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"

Name: **STOJKOV Borislav**

Profession / current status: Prof. Dr.
Director of Republic Agency for Spatial Planning

Contact: Republic Agency for Spatial Planning
Address: Kralja Milutina 10a, 11000 Belgrade, Serbia
Phone: +381113640334
Email: borislav.stojkov@rapp.gov.rs

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
French – basic

Computer skills : MS office, Internet

Short Biography:

Date of birth: 17.10.1941. Belgrade, Serbia

2008 - . Republic Agency for Spatial Planning of Serbia, Director
1993 - 2008 University of Belgrade Faculty of Geography, Full time Professor (retired)
2000 - 2008 Institute of Spatial Planning – Faculty of Geography, Head of the Institute
2002 - 2006 INTERREG IIIc-zone East, Member of Monitoring and Steering Committees
1990 - 2000 Institute of architecture and urban planning of Serbia, Director of Planning Department
1998 - 2000 INTERREG II, Coordinator for Serbia and Montenegro
1975 - 1990 Town Planning Instit. of Belgrade, Director
2004 - Full member of the Academy of Engineering Science of Serbia
2008 - Spokesman in SpaCE-Net (with Prof. B. Mueller and Prof M. Finka)
2008 - Advisor of Scientific Committee in Academia Danubiana

Name: **Todorović Bojana**

Current status: Student

Contact:
Address: Cuburska 15/14, Belgrade, Serbia
Phone: +(00)381641889064
Email: bojana.pp@gmail.com

Personal skills and competences

Languages : Serbian – mother tongue
English – fluently
German – basic

Computer skills : MS office, Internet, AutoCad,ArcGis, Photoshop

Short Biography:

Date of birth:	23.04.1985. Užice, Serbia
April 2010	Participant of excursion - "Global, regional and local aspects of spatial planning in Central Europe"
2009 - 2010	Participation in production of the Spatial Plan City of Užice
June, 2009.	Summer school of urbanism on Zlatibor Theme: Discussion about of place and role participator in new laws
April, 2009.	Scientific and professional meeting on Palić Theme: Planning and normative protection of space and environment
March- May 2009.	GIS Project Seminar Faculty of Civil Engineering University in Belgrade, Faculty of GeographyUniversity in Belgrade, Technische Universitat Munich, City of Subotica and GTZ
April, 2008.	The Seminar "Austrian and Serbian Spatial planning" at Vienna University of Technology

Name: **Kvarda Werner**

Profession / current status : o. Univ. Prof. DI. Arch. Dr. rer. Nat.
professor emeritus

Civil status: married, 3 daughters

Contact:
University of Natural Resources and Life Sciences – BOKU
Institute of Soil Science – IBF
Address: A -1180 Wien, Peter Jordanstrasse 82
Email: werner.kvarda@boku.ac.at
Website: http://www.academia-danubiana.net

Personal skills and competences

Languages : German – mother tongue
English – fluently

Computer skills : MS office, Internet

Short Biography:

Date of birth:	15. December 1940.
2003 – 2009	Professor, Visiting Professor, Slovak Technical University, Bratislava
1993 - 2002	Professor, University of Natural Resources and Life Sciences, Department of Landscape Planning, Vienna
1978 - 1992	Professor, Federal Horticultural School in Schönbrunn and Pedagogical Academy for Agriculture and Forestry, Ober St.Veith, Vienna
1984 - 1990	Student, PhD study, Univ. of Salzburg – IDN, Environmental education
1975 - 1977	Assistant professor, Department of Spatial Planning, Technical University Vienna
1971 - 1974	Technical assistant, Austrian Inst. of Building Research and Architectural offices
1968 - 1970	Official expert, Austrian Institute of Regional Planning
1964 - 1965	Student, Fulbright Scholarship, Illinois Institute of Technology, Chicago
1961 - 1968	Student, Architecture, Technical University, Vienna
1956 - 1961	Student, Technical School for Construction and Building Trade

Name: **Zdravković Marta**

Current status: Student

Contact:
Address: Milana Rakica 96/6, Belgrade, Serbia
Phone: +(00)38162293982
Email: mz_ol@yahoo.com

Personal skills and competences

Languages :
Serbian – mother tongue
English – fluently
Bulgarian – fluently
Italian - good
Swedish – good

Computer skills : MS office, Internet, Macromedia, Ilustrator

Short Biography:

Date of birth: 18. 2. 1988. Belgrade, Serbia

2010 Orchard barn, Ringshall, Suffolk, England Participating in building of environmental friendly and self sufficient houses, education about fair trade goods, composting, ecological farming, clean energy production

2010 Participant of excursion **-** "Global, regional and local aspects of spatial planning in Central Europe"

2006 - Member of Serbian national orienteering team

Name: **Zivanović Slavica**

Current status: Student

Contact:
Address: Vojvode Petra Bojovića, Bijeljina, Bosnia and Hercegovina
Phone: +381644179798; +38766401178
Email: sunflowercic@yahoo.com

Personal skills and competences

Languages :
Serbian – mother tongue
English – fluently
German - basic
Spanish – basic

Computer skills : MS office, Internet, AutoCad, Photoshop

Short Biography:

Date of birth: 14.06.1986. Bijeljina, Bosnia and Hercegovina

April 2010 Participant of excursion **-** "Global, regional and local aspects of spatial planning in Central Europe"

June, 2009. Summer school of urbanism on Zlatibor
Theme: Discussion about of place and role participator in new laws

April, 2009. Scientific and professional meeting on Palić
Theme: Planning and normative protection of space and environment

March - May 2009. GIS Project Seminar, Faculty of Civil Engineering University in Belgrade, Faculty of GeographyUniversity in Belgrade, Technische Universitat Munich, City of Subotica and GTZ

April, 2008. The Seminar "Austrian and Serbian Spatial planning" at Vienna University of Technology

GLOBAL, REGIONAL AND LOCAL ASPECTS OF SPATIAL PLANNING IN CENTRAL EUROPE

The main goal of this study tour of the Geography Faculty, from University of Belgrade, was making the acquaintance of economic, social and ecological projects, mainly in former problematic border regions in Styria, the Burgenland - the region of Fertö-Neusiedlersee - along the Hungarian border, Bratislava, Southern Moravia, Eastern Lower Austria. Our hosts show to students different approaches and solutions about extraordinary innovative political concepts, which is increasing life quality and local working conditions in harmony with natural conditions. This time we were also get some more information about the history of Slovakia, Hungary, Czech Republic and Austria.

The key objective of responsible land use concepts and regional development projects is the preservation of the cultural, natural and economic diversity and the multi-functionality of soil, the landscape and its ecosystems. This time students also see wide range of innovative projects for sustainable development, renewable energy systems and integrated land utilization at the regional and communal level.

ACADEMIA DANUBIANA

A network of excellence called ACADEMIA DANUBIANA has been established to promote a higher degree of territorial integration with the accession countries within the Danube region. The ACADEMIA DANUBIANA focuses on a scientific and educational network within various disciplines and paradigms in planning and systems design. It is addressed to all members of the socio-economic, ecological and administrative community in the broad sense local authorities, students, teachers and non-government organizations.

The aim of this program is about the working out of visionary concepts and projects, offering postgraduate study programs and seminars to promote mutual learning within a dialogue between municipalities, universities, concerned industries, business, non governmental organizations and the society. The results should be communicated to the political-administrative system and the universities in the Danube region.