Sohn, C. (2014). Modelling cross-border integration: the role of borders as a resource. Geopolitics, 19 (3), 587-608.

Van Geenhuizen, M.; Ratti, R. (2001). Gaining advantage from open borders. An active space approach to regional development. Aldershot: Ashgate.

Wagensberg, J. (2004). Cómo perseverar cuando la incertidumbre aprieta bajo la ley general del cambio. Pasajes de pensamiento contemporáneo, 14, 35-44.

Walther, O.; Reitel, B. (2013). Cross-border policy networks in the Basel region: The effect of national borders and brokerage roles. Space and polity, 17(2), 217-236.

ID 1335 | SPATIAL DEVELOPMENT STRATEGIES TO FOSTER TERRITORIAL COHESION IN THE DANUBE REGION

Andreas Voigt[1]; Helena Linzer[1]; Julia Forster[2]; Julia Pechhacker[1]
[1]TU Wien; Department of Spatial Planning, Centre for Local Planning
[2]TU Wien; Department of Spatial Planning, Interdisciplinary Center for Spatial Simulation and Modeling; Spatial Simulation Laboratory (Simlab)
voigt@ifoer.tuwien.ac.at ; linzer@ifoer.tuw ; julia.forster@tuwien.ac.at ; julia.pechhacker@tuwien.ac.at

ABSTRACT: The Danube river connects many countries, different landscapes and a number of regions with various cultural identities. A transnational EU project known as the Danube Urban Brand (DANUrB) aims to create a continuous promenade alongside the Danube, one of Europe's main waterways. This aim entails a whole series of challenges for the involved stakeholders and experts. The main essential tasks from the planning point of view pertain to the development of a cross-border strategy, which requires spatial analysis of well-developed regions. The main findings are being further developed within interdisciplinary teams for interregional and international usage. To tackle these complex planning tasks, a process was developed that ensures the sustainability of the resulting strategy and its outcomes, as well as its transferability to other Danube regions. A stable timeframe and a good team of planners are vital prerequisites for successful regional planning. Clarity and attractive presentation help generate the necessary understanding and support, and create an awareness of planning issues among all the stakeholders.

KEYWORDS: complex planning problems, planning process, strategy, transferability, sustainability

1 INTRODUCTION

1.1 MOTIVATION

The population decline in rural regions is a Europe-wide phenomenon that gives rise to major challenges for sustainable usage of rural environments, especially village settlements. In many places, tourism and agriculture are the most important economic drivers that contribute to preserving the cultural landscapes and enable the population decline in rural settlements to be delayed, or ideally stopped. The course of the Danube river, rising in Germany and ending in the Black Sea, represents a collection of various landscapes and cultural identities.

The historical and political environments in the eastern and western parts resulted in the evolution of different kinds of development in the settled regions alongside the river. An EU-funded project known as the Danube Urban Brand (DANUrB) aims to try to connect these regions via a holistic strategy which similarly preserves individual cultural identities within the regions. The project focuses on the design of a continuous promenade, which requires cross-border knowledge transfer, communication and cooperation concerning spatial development strategies. Tackling this ambitious goal involves the spatial analysis of well-developed regions. On the one hand, this requires the transfer of theoretical planning methods proven in practice and the definition of essential fundamental information for their practical application. On the other hand, it calls for the design of guidelines for the digital transfer of spatially pinpointed information to

enable structured storage of analysis outcomes, easy data handling for all involved stakeholders and ongoing future research within these fields.

1.2 STATE OF THE ART

To develop a common, sustainable strategy of this kind for the whole Danube region, established and proven methods from the German-speaking countries are used, serving as a structural framework to fulfil the aim of producing holistic, transferable solutions for complex planning problems. Scholl employs the method of "test planning", whose core idea is the regular discussion of possible solutions, their advantages and disadvantages as well as conclusions drawn from them. This happens within the framework of an organized process, in which several planning teams as well as experts and important stakeholders participate (cf. Scholl, 2011).

In order to deal effectively with complex planning tasks, the topmost priority, according to Schönwandt, is to define the problems – “problems first”. Only then should a suitable set of methods and solutions be sought. The problem definitions should be as concrete and well-founded as possible. It is important to note that problems are not self-evident and, above all, not objective, but rather concern the perception of individual actors and are therefore socially constructed (cf. Schönwandt and Voigt; 2012).

The definition of the problems should be expressed in terms of time and place, not just in words, but also by illustrative images and representative numbers. This approach facilitates the understanding of the solutionfinding process and the solution per se through conclusive arguments (cf. Scholl, 2012 and Signer, 2012). The use of images and numbers in planning is one of the most important means of communication for the visualization of spatial information. By using digital tools such as geographic information systems (GIS), complex planning problems and possible solutions can not only be viewed in a multi-scalar way, but also can also be stored and transferred in a sustainable manner. In addition, digital tools enable the development of a common documentation standard within cooperative planning processes.

1.3 OVERVIEW

The EU project “DANUrB – Danube Urban Brand” forms the basis for the application of these planning methods. DANUrB, which was launched in January 2017 within the INTERREG Danube Transnational Programme and ends in June 2019, is a project for cooperation in a comprehensive spatio-cultural network to strengthen cultural identity and solidarity in the whole Danube region through tourism and education. Thirtynine partners from Hungary, Slovakia, Austria, Croatia, Romania, Bulgaria and Serbia (…from seven countries bordering the Danube), representing universities, research institutions, socio-cultural NPOs, tourism enterprises and organizations such as regional and local authorities are involved. The aim is to develop innovative, sustainable cultural and tourism strategies with the intention of generating valuable economic and social impulses for the region (DANUrB, 2017).

The main assignment of TU Wien is to select suitable methods of spatial planning and research and show the practical implementation of the latter. A spatial analysis was carried out in which the methods were tested on site (in Austria's Wachau region); the subsequently defined problems? provide the framework for the development of project ideas and solutions. Particularly important is the possible transferability of this process and the potential solutions to other regions downstream on the Danube. In addition to this process, the results and findings are structured, processed and stored in digital form using a GIS database in order to ensure the transfer of knowledge and the reuse of the findings in other regions.

1.4 CASE STUDY REGION

The case study region is the Wachau, a landscape in Lower Austria (Figure 1) which forms the valley of the Danube between the towns of Melk and Krems an der Donau (Figure 2) and lies about 80 kilometres west of Vienna. Together with the abbeys of Melk and Göttweig and the historic town of Krems and Stein (Figure 3), the cultural landscape of Wachau was inscribed on the UNESCO World Cultural and Natural Heritage list in 2000.

Figure 1: Location of Wachau in Austria. Source: own illustration, modified from: oesterreich.com

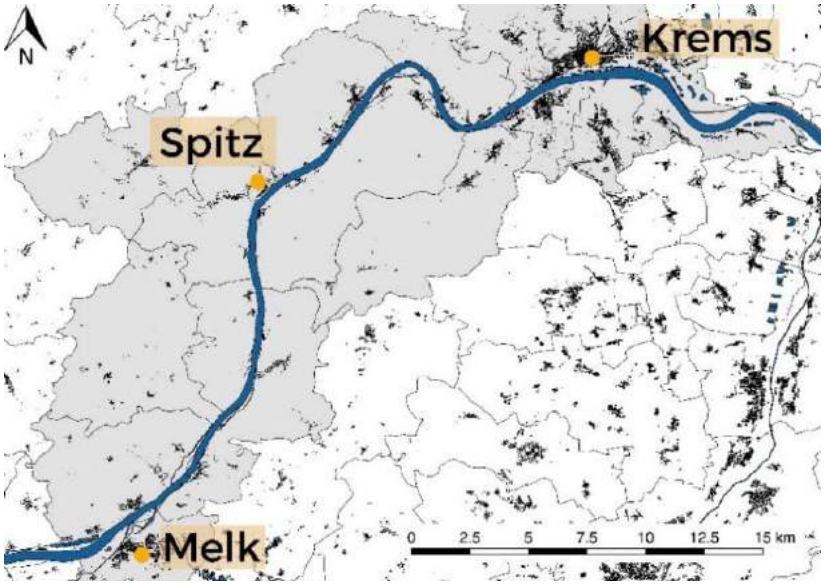

Figure 2: Wachau region with largest municipalities. Source: own illustrations, modified from: data.gv.at

The region is known worldwide for its unique medieval cultural landscape, its wine-growing culture and specific building culture. Figures 3, 4 and 5 below show impressions of the topographical situation of the region, with its vineyard hills and historic ruins. The main challenges are the preservation of the valuable capital of the region, as well as its compatible and sustainable development under the aspect of the UNESCO World Heritage.

l.to r.: Figure 3: View of Krems, historic district of Stein. Source: own picture; Figure 4: View of Dürnstein and the vineyards. Source: own picture; Figure 5: View of the historic ruin at Dürnstein. Source: own picture

2 METHODOLOGY

In order to address the complex tasks of the DANUrB project, the following structure of a planning process, illustrated in Figure 6, was considered:

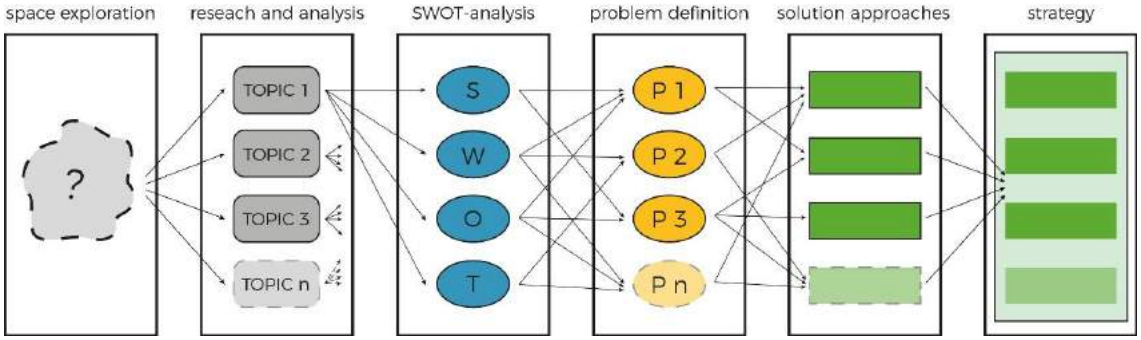

Figure 6: Structure of the planning process; source: own illustration

The process starts with the exploration of the research area. The Wachau region in Lower Austria served as the research region (see Chapter 3). This exploration is followed by the research and analysis of certain previously defined topics for the selected region. The results of these analyses are incorporated into a Strength - Weakness - Opportunity – Threads (SWOT) analysis, which forms the basis for the problem finding and definition. After defining the problem areas, tailor-made solutions are developed by several teams working in parallel. The best and most relevant solutions are combined to form a common strategy for the development of the region. The exact sequence and an explanation of the individual steps can be found in the following.

2.1 SPATIAL EXPLORATION

In order to analyze the research area and its conditions and challenges / problems, it is important to get to know the space, to explore it with all of our senses. This was done during a multi-day on-site research camp. Project partners as well as students from all partner countries participated in this research camp. The basis for the spatial exploration were lectures on the research area, the Wachau region itself, as well as the theoretical presentation of methods for spatial research and planning. The spatial exploration itself took place on two mornings; in the afternoon parallel workshop sessions were held for students and project partners, which served to record the impressions obtained.

The region was explored by train and bus along the riverbanks, with stops and tours in historically significant places and tourism hotspots. As well as getting to know the physical space, exploring the social and economic circumstances was also important. The local lifestyle, agriculture, culinary culture, contact with the local population and finding out about the typical regional traditions also played a key role. The perceptions and impressions were captured in photos and sketches.

2.2 RESEARCH AND ANALYSIS

The analyses were carried out in international and interdisciplinary teams, consisting of students of spatial planning, architecture and landscape planning, focusing on five thematic areas - natural conditions and landscape, transport and technical infrastructure, settlements and villages, population and social infrastructure, and economy. The mixed team composition allowed the input of experiences and knowledge from the individual disciplines, but also from the different nations and cultures. The thematic areas were defined in advance and covered all the fields relevant to the planning of the area.

The first phase of the analysis, the collection and processing of the findings obtained through the exploration of the space, took place during the research camp. First, strengths and weaknesses of the region with regard to the topic of analysis were filtered out. The week's results were presented at the end of the research camp. An in-depth analysis took place in the further course of the semester.

2.3 SWOT ANALYSIS

In the following step, considerations regarding strengths, weaknesses, opportunities and threats were first recorded within the group, after which they were discussed and weighed up in the plenum and rejected or supplemented as appropriate. The SWOT were documented in tabular form. This first SWOT analysis formed the basis for the problem definitions.

2.4 PROBLEM DEFINITION

The problem definition process was essentially divided into four working steps. The basis for this, as already mentioned, was the SWOT analysis, supplemented by a group-internal listing of relevant problem areas according to the individual analysis topics. The first step after this preparation was the collection of all problem areas, including a joint discussion, as well as another brainstorming session (Figure 7) to record any additions.

These problems were documented by word, picture and number, in order to ensure later traceability. From this brainstorming session, an attempt was made to compile a problem cluster in order to identify and understand the interconnections and effects of the individual problem areas (Figure 8). Subsequent to this step, the cluster diagram was reworked once more by adding a weighting to the individual effects. This took into account how strongly a problem field affects other problems and vice versa, which problems are affected by this, and to what extent (Figure 9). From this diagram of a problem cluster and the accompanying plenum discussions, some main problem areas emerged (Figure 10), which were noted for definite inclusion in the possible solutions. In addition to this method of filtering out problems, an attempt was also made to locate the problem and its chronological place by means of graphical illustrations, in this case, by map illustrations. The challenge was to illustrate the problems in a meaningful way. Since this was not possible in all problem areas, a literal description was added.

Figure 7: Brainstorming session on problems. Source: DANUrB – student team of TU Wien

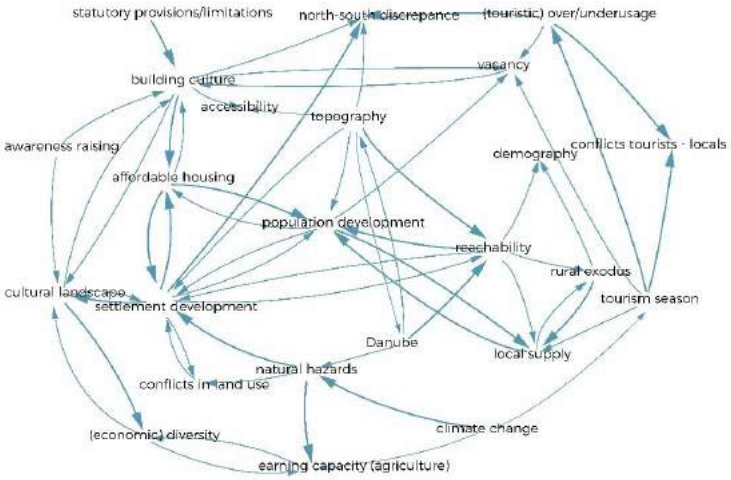

Figure 8: Interconnections between the problems. Source: DANUrB – student team of TU Wien

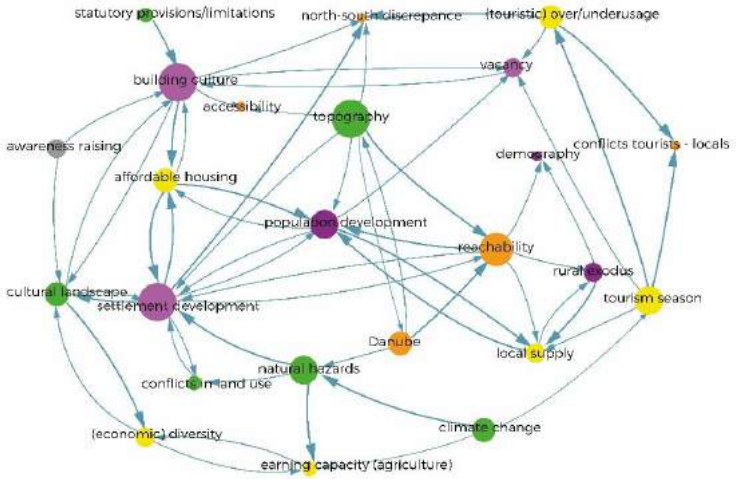

Figure 9: Weighted impacts of the problems. Source: DANUrB – student team of TU Wien

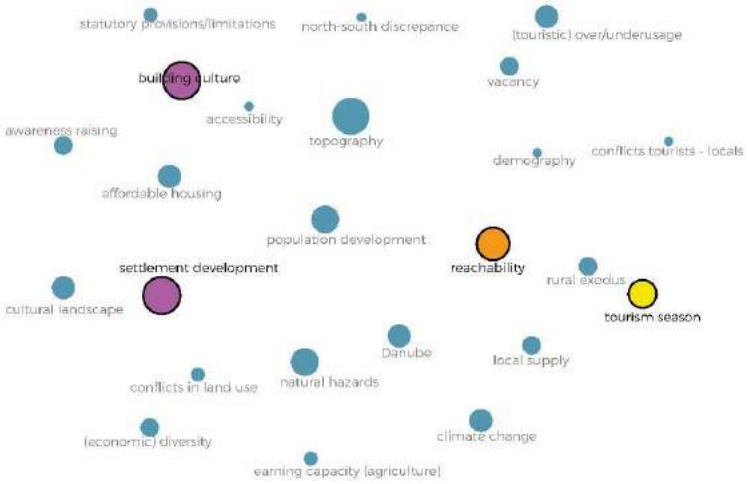

Figure 10: Main problem fields. Source: DANUrB – student team of TU Wien

2.5 POSSIBLE APPROACHES TO SOLUTIONS

At this stage it should be mentioned that the former five analysis teams reformed into three project teams in order to perform the following tasks in the manner of a test planning procedure.

The task of the teams was to develop ideas and projects for the region based on the jointly defined problems. These ideas and projects should also be transferable and act as an inspiration to other Danube regions in terms of their basic ideas and planning approaches. According to the "problems first!" approach, relevant problem areas were selected and debated, in order to develop a vision formulating objectives for the development of the Wachau region. The projects were to focus on a specific location and give details of stakeholders involved, a cost estimate and an explanation of the anticipated effect, documented with reference examples.

The solution-finding step was embedded in an open, constructive process in which the teams alternated between working individually and in the plenum. At these plenary meetings, the ideas and the status of the work in progress were presented to all and discussed together, debating the pros and cons of the project ideas, and whether there were similar ideas taking different approaches.

2.6 COMMON STRATEGY

In order to arrive at a joint strategy for the Wachau region in the last step, the best ideas from all the project teams were brought together and interlinked.

After the Wachau, the suggested process was also applied in two other Danube regions in Serbia and Hungary.

To exchange the results, a workshop was organized in which the students presented their work reciprocally and then looked for similarities or differences between the respective regions in order to create knowledge bases and possible process adaptations for the future work in further Danube regions.

2.7 ADDITIONAL COMMON PRINCIPLES AND TASKS

In addition to this strategic planning process, there are a number of other important principles and tasks within the framework of DANUrB which were essential for the transferability and further use of knowledge and implementation of the process. These are briefly explained below.

Knowledge, expertise: The most important basis for research into the spatial, social, cultural, historical and legal circumstances and characteristics of a region is proper training in spatial planning. The students are familiar with the methods and tools of planning and know how to deal with them. This know-how is essential to the success of the project.

Organization of an on-site research camp: In order to find suitable methods that can be used in research and planning in all Danube regions, the on-site research camp turned out to an ideal way of preparing project partners - researchers, stakeholders, representatives from different cities and countries, as well as students – for the complex planning tasks ahead. Particularly important was the excursion to the region, so that the participants could get a feeling for the region and its challenges. Furthermore, the workshop format was the only way to get partners from all countries around a single table. This made communication and cooperation much easier.

Data collection and data processing: In order for all the analysis and project results to be documented by word, image and number, comprehensive data collection and verification of these data were required. Furthermore, as already mentioned in chapter 1.3, a GIS database structure was developed. This database serves to store the basic data, analysis and project data as well as to transfer it to project partners in other countries.

The latter will then fill the database with results from other Danube regions throughout the entire duration of the project. An information and knowledge platform can thus be provided for all partners involved.

Determination of common scales: In order to ensure a certain comparability between the results and data from the respective project regions, the partners at the on-site research camp agreed on common standards that will be applied in the further course of the project. The focus is on a multi-scale view of the problems and results.

Creation of a glossary: The joint elaboration of a glossary containing definitions on the key issues surrounding the DANUrB project was essential in order to ensure a common understanding of the terms, to communicate one's own understanding to partners from other countries and, where necessary, to compare one another's interpretations of these key concepts.

3 RESULTS AND CONCLUSION

It proved useful to structure complex planning tasks into a defined process that is fully applicable and transferable to other regions. This was supplemented by jointly defined methods and benchmarks which allow a certain degree of comparability among the results for the specific regions. A GIS database was compiled to store all the above results and information and make them available for further use.

This strategy meant that in the very first months of the DANUrB project it was already possible to show the diversity along THE European river – the Danube – to resolve common problems, exchange ideas, and communicate and cooperate between regions and across national borders.

Work in planning practice must be underpinned by a solid foundation of planning theory and methodology. On the one hand, tried-and-tested approaches and concepts can be applied; on the other hand, however, difficult planning phases repeatedly occur in which special attention and a cautious, sometimes time-consuming approach are required. Innovative concepts and approaches are called for at all times. A strategic approach requires those involved to keep an eye on the essentials while simultaneously dealing with important, urgent matters. This calls for overviews of spatial and time resources, the organisation of the planning process and the key players in regional development, coupled with precise insights into specific regional and local circumstances.

A stable timeframe and a good team of planners are vital prerequisites for successful regional planning. The planning problems, be they routine tasks or unresolved complex problems of great societal and spatial significance, should be kept in mind at all times ("Problems first!"). Clarity and attractive presentation help generate the necessary understanding and support, and create an awareness of planning issues among all the stakeholders. The DANUrB research project has offered plentiful evidence of this, and will continue to do so.

The particular challenges of the project lie in the need for cooperation among teams from a number of regional contexts and planning cultures that differ to varying extents in terms of language, culture in the broadest sense, and mindset. Knowledge and understanding of these differences, combined with the will to build up trust and place the emphasis on shared characteristics, are important prerequisites for successful projects and developments at European level.

4 ACKNOWLEDGMENT

The DANUrB – Danube Urban Brand project is co-funded by the European Union (ERDF, ENI, IPA II) (see Logo Figure 11).

Figure 11: EU Danube Transnational Program Logo

BIBLIOGRAPHIC REFERENCES

Signer, R. (2012), The Image Precedes the Idea' Images in Spatial Planning, In: spatial research lab – forschungslabor raum. The Logbook – Das Logbuch, Internationales Doktorandenkolleg Forschungslabor Raum, p. 50ff.

Scholl, B. (2011), Die Methode der Testplanung – Exemplarische Veranschaulichung für die Auswahl und den Einsatz von Methoden in Klärungsprozessen. In: Grundriss der Raumordnung und Raumentwicklung, Akademie für Raumforschung und Landesplanung (ARL). Hannover. p. 330

Scholl, B. (2012), Project-Based Learning – The Core of a University Education in Spatial Planning and Development, In: HESP – Higher Education in Spatial Planning, ETH Zürich. p. 80f.

Schönwandt, W., Voigt, A. (2012), Embedding Education in Strategic Planning in Planning Curricula, In: HESP – Higher Education in Spatial Planning, ETH Zürich. p. 89

DANUrB (2017), Newsletter 01 – 20.04.2017: http://www.interreg-danube.eu/news-andevents/newsletters/514, retrieved on 02.05.2017

Base Map oesterreich.com: https://www.oesterreich.com/en/staat/bundeslaender/niederoesterreich retrieved on 08.05.2017

Base map data.gv.at: Verwaltungsgrenzen politische Gemeinden 1:50000, retrieved on 08.05.2017

DANUrB – student team from TU Wien: Bindreiter Stefan, Jahn Bianca, Pechhacker Julia, Prieler Johannes, Puchner Tobias, Rapp Julia, Rieder Katharina, Schmid Stefanie, Vukovich Clara

ID1450 | THE BOSNIAN SPATIAL PLANNING SYSTEM - ATTEMPT AT AN EXPLANATION

Edib Uruci[1]
[1]TU Wien
edib.uruci@tuwien.ac.at

ABSTRACT: To understand the Bosnian spatial planning system it is necessary to get an overview of the structure and hierarchical levels in Bosnia and Hercegovina (BiH). The process, of setting up a new state formation and order is directly linked with the war and its all impact (1992-1995), which has started after Bosnians independence from the former Yugoslavia (Socialist Federal Republic of Yugoslavia – SFRY) in March 1992. The war consequences have still an enormous influence on daily life in Bosnia and Hercegovina and on the spatial planning system as well. This paper tries to explain the complexity of the Bosnian spatial planning system, to show its gaps and to explain the cause for its transnational planning character.

KEYWORDS: Bosnia and Hercegovina, Federation of Bosnia and Hercegovina, Republic of Srpska, Canton, Spatial planning, Planning gaps, transnational planning

1 INTRODUCTION IN BOSNIANS ADMINISTRATIVE-TERRITORY STRUCTURE

After the war in Bosnia (1992-1995), which ended in November 1995 by the Dayton Freedom Agreement (DFA), Bosnia and Hercegovina become a new state structure. Since then, the country is structured in two entities, Federation of Bosnia and Hercegovina (FBiH), Republic of Srpska (RS) and one district -Brčko District. Brčko District, in northeastern part of BiH, is a self-governing administrative unit, as well as condominium[1] under the dual sovereignty of the two entities. The Figure 1 shows an overview of the administrative structure in BiH. Before the war, there was 109 administrative-territorial units respectively municipalities on Bosnians approx. 51.000 km² territory area. Through the DFA, the number of this units increases up to 142 (Ministarstvo za ljudska prava i izbjeglice, 2006). FBiH contains 79 administrative-territorial units, which are allocated in the ten cantons, 62 of 142 are situated in RS and one administrative-territorial unit is Brčko District (Ministarstvo za ljudska prava i izbjeglice, 2006).

[1] Merriam-Webster dictionary defines a condominium as a politically dependent territory under condominium (https://www.merriam-webster.com/dictionary/condominium)