Amorino Poropat[1]

UDK: 711.14-11

Original scientific paper
Izvorni znanstveni rad

THE LAND PLOT –THE INTRODUCTION OF PLANNING SCRIPT

ABSTRACT

The purpose of this paper is to bring to life universal spatial planning rules whose marks are symbols reminiscent of letters for writing words, and are in practice pictures of drawings. The goal of the research is to determine general terms for the development of a hierarchy of use with four levels of land plots. The research methodology includes an analysis of the way spatial planning takes place at present in theory and in practice as well as experience in preparing and implementing spatial planning plans. The general terms in order from superior to subordinate units of use are: Planning area, Planning zone, Planning block and Planning parcel.

Keywords: *Property, spatial planning, purpose, hierarchy*

I. INTRODUCTION

In order for construction on land to take place in an orderly fashion, a universal set of rules for spatial planning must exist just as a system of writing exists for everyday human communication. Without letters writing cannot exist, and so without land plots spatial planning cannot exist. An important role in planning is played by the "rules" for the preparation of spatial plans. The base for the preparation of these rules is The Act. As such in its regulations the newest Spatial Planning and Construction Act (The Act, 2007, num.76, article 80; 2009, num. 38) states important rules for planning space, but also includes projects as the starting point for planning.

Before a plan is prepared, it is possible to conduct a bid for the preparation of "professional solutions" (not clearly defined by law, a practical-urban-architectural solution or preliminary project without a detailed design plan). This encourages euphoria: architectural creativity, expert panels, awards and recognition for professional solutions which will be built into the spatial plan. As a rule this professional solution is a "combination of aesthetics and overload." The combination of aesthetics is the preliminary project within design standards, new forms of volume, material and internal functional solutions with rich content that are visually attractive. As a rule, the combination of overload is the maximising of construction, sizes, capacities and profits which in a large measure surpass the framework

[1] Ph. D. in Technical science, field Architecture and Urban Planning. Senior research fellow at the Institute for Agriculture and Tourism, Poreč, Croatia, e-mail: amorino@iptpo.hr

of spatial planning standards. Moreover, spatial planning lacks a hierarchy of purposes so that at the level of the Republic of Croatia elements of planning in hospitality are mistakenly placed in such a way that the smallest planning unit, the construction parcel, is made equivalent to a zone. According to current professional knowledge, as a rule the units of organisation in descending order are: building area = two or more zones; one zone = two or more blocks; one block (group) = two or more construction parcels. On the internet one can find that the detailed spatial plan determines the prerequisites for construction on one construction parcel with an area of 36 ha, which according to the plan belongs to a zone or purpose area at the general urban plan level. The said parcel is home to a group of ten-odd buildings with the following purposes: villa, hotel, street and more![1] This contradicts a number of rules, starting from the way the plan was developed, and especially contradicts the mandatory spatial indicators (Regulation, 106/98, 39/04, 45/04, 163/04), as well as the scientific knowledge of the coefficient for construction and exploitation. The latter define the relationship between the numeric measurements of an individual construction and its associated plot of land (Marinović-Uzelac, 1989,161-164; Albers, G et al. 1983, 171). The subjects of this research are planning elements while the objects of study are land plots in their function as rules for spatial planning. Analytical and empirical research methods were used. Important works from relevant literature, regulation provisions and the application of current experience in preparing and enforcing spatial plans have been analysed. The expected scientific contribution is the formation of the rules for the hierarchy of purposes in four levels. The title feature of planning symbols will be covered in an analysis of planning features, construction rules and elements of planning.

2. CHARACTERISTICS OF PLANNING

Important points in planning have their foundation in scaling, design, regulations, definitions and the application of functions and elements. Relevant literature contains rules for scaling land areas in settlements and individual types of buildings. As such, we have a way of scaling minimum and maximum land sizes through tables which include calculations for the area of residential settlements. "LUI" (land use intensity) tables have been developed as have numerical measures of various spatial rations. These ratios describe the total storey area and land area (FAR), and there are also rations for open spaces (OSR), living spaces (LSR) and recreational space (RSR) as well as ratios for automobiles (OCR and TCR). Additionally, all the applications of types and construction of residential buildings and the associated size of the residential unit are in the scope of an "acre" (1 acre = 4046.9 m^2) (De Chiara, Panera and Zelenik, 1995, 30-54). Tables for the scaling of construction and spatial planning according to residential capacity have been determined with a scale from 10 to 500 inhabitants / ha and include divisions for public use: institutions, parking lots, green areas, general interest, schools and roads and other uses: construction areas, density markers and others (Colombo, Rossetti, and Pagano, M. 1996, 1186-1193). The featured literature analyses partial spatial solutions which are very important for planning settlements and are very detailed and practical in their application because they contain certain spatial standards. In particular one can find the measure for designing as the size of the planned area. Designing is also the imaginative creative work of the architect (Puntera, J. Carmona, M. 1997, 1-366).

"Over a period of many years, from the 1960s, legal regulations which regulate the problems of spatial planning were changed very often. These frequent changes in legal regulations largely did not tend towards a simpler definition of the problem but quite the

opposite. In the Republic of Croatia the vocabulary of plans which regulate spatial planning have multiplied and as such have caused confusion in their practical application" (Poropat, Brščić and Velčić, 2006, 139-152).

From a scientific point of view, "Planning is a process of decision making in organising space based on professional knowledge. Creative abilities and collected data on the space are used to achieve optimal conditions of preservation and usage" (Pegan, 1996, 95-108). This is a good formulation about planning whose words are conceptually general and do not include land plots. According to Yates, Garner (1971), planning is the overlapping of scientific urban disciplines: urban sociology, urban economics, urban politics and urban geography (Vresk, 2002, 1-3).

There are many definitions for planning. One of the earliest can be found in the European Charter on Regional / Spatial Planning (often called the "'Torremolinos Charter"), which was adopted by the European Conference of Ministers Responsible for Spatial Planning (CEMAT). "Regional / spatial planning is a geographic expression of the economic, social, cultural and ecological politics of a society. It is simultaneously a scientific discipline and an administrative technique and was politically designed as an interdisciplinary and global approach directed towards balanced regional development and physical spatial organisation according to a comprehensive strategy."[2]

According to Partzsch (1970), a group of economic activities are city functions and their planning can objectively provide the basic categories of needs or life functions for human existence: housing, work, provisions, education, rest, transport and communications (Vresk, 2002, 36-37). The stated functions are regulated by spatial plans and the majority of activities in a person's life affect the arrangement and organisation of space at the element level based on personal and social interests.

In this work the elements of planning surfaces or areas are the units of purpose and they change accordingly through regulations that do not include scientifically based features and elements of land plots. This creates an even larger government administration apparatus, confusion and problems in the economy because the rules of hierarchy in the application of units of purpose are missing and as a result possible financial, psychological, social and other concessions are present. The current state of affairs are a consequence of this and are being interpreted by the media, radio, television and others as a recession.

The said state causes cumbersome administration, questionable employment and earnings, debt, profiteering, imbalanced spatial development and more. For this reason it was necessary to develop a hierarchy of purpose or plots which at first symbolise a system of planning script in order to create a basis for universal planning. General theoretical planning features have been determined which lack elements or units for the conditional shaping of surfaces or space as the practical means or symbols of plots for the development of plans. Precisely this theoretical knowledge gives us enough motivation to enlighten the starting point for concepts on the practical side of planning. For this reason we ask ourselves the question, what is planning based on, on what organisation and what matrix of concepts? In this work planning includes a matrix of concepts for the main organisation of plots into a hierarchy of use as well as the associated general terms as a basis for the development of planning script regardless of the identity of the terms of use, numerical measures and the terms for the associated infrastructure routes and links included in spatial plans.

3. CONSTRUCTION REGULATIONS

Different regulations for construction exist in the world, but few of them deal with the rules for planning symbols for the development of spatial plans. The regulations for the

preparation of spatial plans relevant to this work shall be discussed as they are used in two different countries: Croatia and Italy.

3.1. **Regulations in Croatia**

In Croatia, the above-mentioned Regulations (1998 and 2004) determine the content, measures for cartographic views of spatial plans, necessary numerical and graphic spatial indicators with planning features and survey standards which are used in the preparation of spatial plans. The content of spatial plans is specifically assigned as are the associated measurement ratios for cartographic views. The content gives a list of titles or chapters to be analysed in the written part, while the visual part is defined by a list of cartographic plan views. In the written part of the Regulations, the mandatory spatial indicators are measures of housing density (population density), how to use and organise spaces (construction coefficients, utilization coefficients and development density). The graphic part of the Regulations includes the number of chapters with survey standards, graphic indicators and purpose.

The chapters are: borders and the central settlement system and development centres, the use and purpose of area / space (spaces / area for development and organisation, traffic, post and telecommunications), infrastructure systems and networks (power system, water management system and waste treatment, storage and disposal), the conditions for spatial use and protection (conditions for use, areas where special organisational and protection measures are in place, forms of use, the manner of construction and construction conditions). The study standards section is a description of the sizes of the contours, lines, points, colours and proportions of planning characters and especially the manner in which the study is bound, the number of original copies and signatures, the acceptance decision and the manner in which the plan is to be stored. Graphic indicators are planning characters. These are little pictures (planning characters) for infrastructure which form a belt of land for roadways (roads, streets, etc.) and rails (railways, trams etc.) as well as line routes (electricity, water supply, drainage etc.) and little pictures for the surfaces of areas / spaces. Planning characters are further described by planning markers which differentiate: purpose, settlements, infrastructure, etc.

Purpose is a type of classification which includes the same terms for spatial indicators arising from four types of plans (PPŽ, PPGZ, PPPP, PPUO/G)[3] which identify areas outside of settlements or units of use which correspond to the terms of the area.

Commercial uses: manufacturing areas for exploiting mineral resources (exploitation field); farm areas; business use; hospitality-tourism use; sport-recreational use; agricultural land exclusively for basic use; especially valuable land; valuable fertile land, other fertile land; forest exclusively for basic use; economic, protected forest, forest with special use; other agricultural land, forests and forest land; water surfaces; special purpose; infrastructure surface areas and cemeteries.

They particularly provide spatial indicators (with the same terms) for the development and arrangement of settlements for the analysis of three types of plans (GUP, UPU, DPU)[4]. Only the main terms without symbols are emphasised:

Commercial use: residential use, mixed use; mostly residential; mostly commercial; economic: manufacturing, business, hospitality-tourism, tourism-harbour with special use, sport-recreational use, public green areas, protected green areas, special use, infrastructure surface areas and cemeteries.

3.2. **Regulations in Italy**

In Italy rules have been determined for the processing spatial plans using symbols and are documented in the book Urban Planning Manual – Manuale di urbanistica. Conventional symbols for the production of urban plans in Italy include three chapters of symbols. These symbols are tables for planning territories, municipalities and building restoration. Planning territories are zoning (12 characters) and driving (9 characters). Municipal planning includes the following tables: state-level relief (50 characters), territorial zoning (15 characters), driving and road profiles (25 characters), general interest provisions (30 characters), transport facilities (15 characters), urban, technological and differentiation services (9 characters), foundation of urban composites (characters), educational institutions (21 characters); sports institutions (25 characters), cultural and leisure institutions (13 characters), conventional symbols for building restoration (59 characters). The terms for individual zones and areas are in the following sub-sections: Zones and building areas.

We previously introduced the reader to the way in which settlements and associated buildings are scaled as determined by the special tables. At the same time there are methods for planning construction which include survey questionnaires and graphic representations of conventional symbols. Survey questionnaires are marked by "Q" from (Q/1-Q/9 to Q/17-Q/31) and the associated table marks (Q/10-Q/16). The "Q" modalities include information on the requests for construction permissions, information from the content of construction permits and relevant indicators (parameters) for the scaling of individual buildings based on m^2 and m^3. Then, statistical data on the population, institutions (schools) through statistics and a good structure of students as well as preschool institutions (kindergartens, day cares etc.); the verification of standards for housing occupancy, manufacturing, public purposes and the number of users; an analysis of the demographic information for public buildings and utility organisation; a view of the size of the occupancy at the zone level; a view of accidents; the structure of the size of school institutions; information for the analysis of historical centres; information for building reconstruction as well as a for renewal or revitalisation plan (Colombo, Pagano and Rossetti, 1996, 1165-1294).

3.3. Problems – A Comparison

In Croatia, the chapter titles are general and methodology is lacking. In addition there is no visible hierarchy in the structure of units for the development of purposes and their identities (name, size, capacity, location, etc). The same can be said of the associated cartographic views.

The following chapters have been determined: The use and purpose of spaces/surfaces and the development and organisation of space in such a way that the same use can be pulled through seven levels of spatial plans. As an example "hospitality-tourism use" (T1, T2 and T3) is the same unit of use for seven types of spatial plans (PPŽ, PPGZ, PPPO, PPUO/G, GUP, UPU, DPU). They are missing hierarchy, complete use types, sizes and plot capacity.

In Italy, the above-mentioned conventional symbols for the preparation of spatial plans (urban plans) are rules which symbolically cover various surface and space uses. These terms of use are globally very general, while in detailed uses, especially public construction, they are very precise. Special "spatial" standards for scaling the settlement are added to them. The latter are tables with building conditions in relation to the population density per hectare of settlement. Urban planning standards determine the use of 100 m^3 of buildings per

inhabitant with a certain percentage of communal areas (streets, parks and others) ensured, while the details are elaborated in spatial planning documents. A hierarchy of use and systemization of related terms is lacking as are features and elements of symbols for the equivalent measure of planning for other areas outside of the settlement.
The rules have a common basis as they contain "signs" for the preparation of zoning plans.

These signs are different terms, amounts and appearances. They are reminiscent of letters before the development of the alphabetic writing system. Above this, the differences are spatial standards, methods for planning settlements and individual planning features in favour of the rules in Italy. Mandatory spatial indicators are attached to the Croatian rules. The said rules have not recognised the plot as the symbol of planning nor have they recognised the hierarchy of units of use.

4. ELEMENTS OF PLANNING

Spatial plans include written and graphic parts of which the former develops elements within the scope of land. The graphic part can have a separate cadastre base of which the most precise contains the land and buildings as elements in the scope of cadastre parcels (plots). Using the said basis, surfaces or spaces are formed by planning as elements for organising belt roadways as well as surfaces for construction or organising agricultural and other land. By analysing spatial plans[5], surfaces and belts with various appearances have been defined, reminiscent of plots and their modalities as means or symbols for forming surfaces and especially for forming space.

Consequently, we can mention a number of relevant scientific works which cover planning elements in literature. For example, the classification of city land in the scope of the metropolis (Owen, McKenzie, Bunce, Stewart, Donovan, Stark and Hewitt, 2006, 311-321).

The transformation of space in the Beijing study (Gu and Shen, 2003, 107-122). In particular the criteria for "zones" in the data base (Lin, 2000, 21-32). A model for the definition of future development zones (Weber, 2003, 49-60) and the classification of functions of urban spaces (Antrop, 2004, 9-26).

New spatial planning regulations in the Republic of Croatia have omitted professional terms and make up new ones without explanations so that for the planning of hospitality-tourism uses, a building parcel is made equivalent to a zone or group of buildings in terms of the spatial whole.[6] This has far-reaching negative consequences for the economy and spatial development because plans are difficult to develop and implement. As a result the current state of professional terms will be conceptually analysed.

4.1. Construction parcels

At the state level in Croatia, the term construction parcel has a wider meaning. In cadastre and urban plans the unit of purpose is marked as a plot or parcel of different terms: *ciepac* (of land), *lapat*, plot, cadastre parcel, construction parcel, parcel, construction plot, site, estate, real estate etc.[7] In shaping land use a process arises that can be observed in different ways from which its purpose in "culture" is set apart so that it contains a whole construction parcel or parts of one. The culture identifies the way the land will be used. According to cadastre terms there is a difference between a land area's culture or the manner in which it is used (house, stable, building, garden, courtyard etc). This means that the term "house" defines the form of use in the size of the area which forms the floor-plan of the house at the land level. A similar identification is made by certain cultures for the remaining cadastre terms. The formation of a parcel or plot is also the identification of a piece of the earth's surface recognisable by its use regardless of the configuration of the land made by the

certain (cadastre) culture. According to Professor V. Anić's definition, *a plot is a piece of land as part of the larger whole where the same agricultural crop is cultivated; a unit of measurement of area which is registered under a certain number in land registry books*. A building parcel is a unit of spatial purpose for an existing or planned building. Adjacent to a building parcel there must also be a "municipal parcel" as a unit of purpose for the organisation of a settlement or a parcel of land for roads, paths parks etc., whose terms of use are being formed because they do not exist in the Act (Poropat, 2000, 291-307). In its basic meaning a building parcel *by definition identifies the size, shape and location of land*, while its role in that land's construction includes a building plot whose unit land use is as space for an existing or planned building and yard. According to Srečko Pegan, a professor at the Faculty of Architecture at the University of Zagreb, a building (construction) plot (parcel) is an organised part of construction land which has designated roadway access and is located within the building zone of a certain urban or spatial plan.[8] Emphasis is put on the part of the glossary that defines the meaning of a building plot. In the rest of the text (footnotes), the conceptual meaning grows to two construction plots of which one is for construction while the other is for land planning. The latter conceptually corresponds to the term municipal (communal) plot. Current Croatian legislation does not define the conditions for planning municipal (communal) plots and the subjects the term to replace a building parcel (roadway, public transportation surface, street, road etc). Objectively, if we want organisation and rules for sustainable spatial balance we must create a legal framework with the conditions and permits for municipal (communal) plots, especially for roadways and building plots.

A construction parcel defines the conditions for construction or what is being built, while outside the building and inside and outside the construction areas there are other terms for plots which regulate arrangement, cultivation, protection and more. These are agricultural parcels, forest parcels, water parcels and others which do not have building parcel status but are organised or regulated agricultural and other land. As such a building parcel does not have the features for other types of parcel use, causing conceptual confusion. How to adopt a term for a building parcel which organises agricultural and other non-building land? Impossible! Quite simply, agricultural land does not have construction but is cultivated or arranged and the stated terms do not tell the reader that building land is being discussed. The spreading of building parcels into agricultural and other areas is significant, large and the question remains, for how long? Scientifically, a building parcel is the "smallest unit of urban planning" (Poropat, 2003). In the plan it includes one or more cadastre parcels and the associated combinations of parts and wholes. The implementation of the plan (subdivision of land plots) contains one whole from one new cadastre parcel, equivalent to the size and shape of a building parcel. The measuring (surveying) of the building parcel in the field is the subdivision of the land's plots (Poropat, Serge, Ružić, 2008, 501-514). In spatial planning the building parcel must be replaced with a term that conceptually includes all types of planning parcels. What is this term? If an adjective is added to parcel which points to its creator or what creates its new form and makes it sustainable, then we can state that this is the right term. In spatial planning the person who creates parcels is the spatial planner (Marinović, 2001, 21-26). One of the possible terms which can conceptually replace all types of parcels in spatial planning is the planning parcel.

4.2. Block

Areas of land in parts of a settlement intended for a group of buildings (existing or planned) framed by roadway areas form building blocks. Blocks can be buildings, grounds or partially constructed areas and their shape can be regular or irregular (Mirković, 1978, 233-248 and 1968, 123-160). According to Branislav Mirković, professor at the Faculty of

Architecture in Belgrade, block construction is element of planning which has been meticulously processed both textually and graphically. The term 'block' has very different meanings. Some of these meanings can be objects (movable property): ticket sale blocks, a drawing or writing block etc., while other meanings can be immovable property (real estate): a block of land, a block of buildings, a block of construction, a system of blocks (Müller, Vogel, 1999, 524-525). Of note is the analysis of blocks conducted from the aspect of historical importance by Dr. Milan Prelog in his book "Poreč grad i spomenici" (*Poreč, town and monuments*). He conducted a detailed analysis of 23 blocks at the level of the old town of Poreč. Other than this, in relevant literature we can find other terms: residential group (Uzelac, 1989, 213); "a rectangular network of streets which divide the city area into equal building blocks (*insula - islands*). Each insula (island) is divided into plots of varying sizes from 380 to 1520 m^2" (Müller, Vogel, 1999, 167-169); fragments of settlements, urban fields (urbanizam.net, 2004, 98, 180); tourist complexes (resorts), /(Karlovac, 2008, 27)/; units of space (The Regulation, 2004, 128); wholes (Prinz, 2006, 50).

By taking into account the data processing time and the degree of urban development at the time, new facts come about and the need arises to adapt block planning. These facts are in seeking new general terms which can conceptually replace residential and other construction blocks and arrangement of a group of plots and in this way remove the uncertainty in the identification of a block. In this work the general term is reminiscent of plot or unit of use to include land within which it is possible to conditionally analyse a larger number of shapes and the associated sizes, amounts, types of use and space capacity. Professionally, the creativity of shapes and building conditions for blocks are the domain of the planner and in this aspect the general term is planning block. This implies that units of use are also determined outside of settlements on land that is not zoned for building.
The planning block is a conditional unit of use that includes land in a group of buildings or group of building parcels which are framed by existing or planned traffic areas.

4.3. Zone

As a rule different terms (spatial characters) are used in planning the wider area, of which the zone[9] is stressed, in Croatia as in other countries. Zoning (English), zonage du sol (French), zonizzazione - secondo la destinazione d'uso (Italian), zone-indeling van een gebied naar grondgebruik (Dutch), aufgliederung – aufteilung in nutzungszonen (German), zonering (Sweedish): (Logie, 1986, 100-101). A significant contribution to zoning theory was conducted in the book "Teorija namjene površina u urbanizmu" (*The theory of the use of areas in urban planning*, Marinović-Uzelac, 1989, 13-138). Zone (the Greek for *belt*) can be interpreted differently! "In spatial and urban planning in the Croatian language this concept is used for surfaces. A zone can be part of a space (city or regional space) with a certain use – determined homogeneous features by which it is different from other spaces – limited and with boundaries in drawings. A zone has a certain function, location and size which can be drawn on a map. A zone is an area with various users who represent one homogeneous group of functions." (Marinović-Uzelac, 1989, Pegan, 2007, 173).

This is a zone of common features as compared to the use of areas which are encompassed by a number of building parcels which form a spatial-functional whole (Regulations, 1998-2004). Furthermore, a zone in the function of area contains a number of building parcels, a number of units with the same use or units of use, and in places mixed use etc. Above this a zone is equated to a larger field area as "a spatial whole for hospitality-tourism use," (The Regulation, 2004), residential complex (Mirković, 1B, 1968, 130) and/or a large plot (Marinović - Uzelac, 1989, 94,103).

In Italy a number of classification zones have been defined: historical centre zones, intensive residential zones, semi-intensive residential zones, semi-extensive residential zones, extensive residential zones, sparse residential zones, zones for institutions of public interest, industrial and commercial zones, mixed use residential and small-business zones, public green zones, private green zones, protected zones, rural zones as well as cemetery borders, and borders of renewal zones (Colombo, Pagano and Rossetti, 1996, 1223-1224). The stated classification zones identify the parts of cities. Taking this into consideration, if the concept of a zone is descriptively explained by joining it with an adjective, then its activities are precisely defined.[10] Its application in spatial planning in the Republic of Croatia is not conceptually legislated or adequately explained so that as such the profession replaces it with other terms (planning whole, district, quarter, area etc). This work specifies a zone so that its meaning unequivocally defines it as the work of the planner, and determines the resulting term planning zone. The latter term also covers land areas which do not have building zone status of. These zones are vineyards orchards etc.

A planning zone is one or more complexes and a number of planning blocks in the framework of conditional plots for specified uses.

4.4. Building area

In spatial plans building areas are equated with the following terms: area, district, zoning, parts of the territory of local government. In the hierarchy of land plots, the widest unit is the "area" and it encompasses three lower levels of units of use. In this work the scope of an area conceptually refers to a building area or scope of existing and planned settlements in terms of cities as well as other non-city areas of special characteristics that need to be legislated. Non-city areas of settlements are parts of the areas (municipal centres, countryside, estates etc.) in the identity of the zone, block and individual buildings. According to the Spatial Planning Act, "building areas for settlements as determined by the spatial plan for a large city, city and municipality are the constructed and arranged part of the settlement and the non-constructed part of the area of this settlement planned for the its development and widening."[11] *Rajon* (region) or district is the synonym for a building area of a city which was used in 1958 for "constructed and non-constructed land located in more narrow building districts of cities and settlements with city-like characteristics" (Nationalisation of hired buildings and building land Act, 1958, num. 52, artcle 34). The area as a unit of use in spatial planning can be recognised in terms of zoning or the "act of dividing territory" (Marinović-Uzelac, 1989, 16). The Italian Urban Planning Guide defines zones for planning territory or their classification. These are: special destination zones, urban development or establishment zones, inconvenient, harmful, dangerous and special industrial zones, mining fields, potential industrial and residential areas, general interest parks, important landscape type zones, important and significant landscape zones, protection or respectful zones without legal buildings, zones for institutions and services in the general interest and special zones (Colombo, G. Pagano, F., Rossetti, M., 1996, 1218-1219).

Each of the above-noted zones has a certain character. The features of the area and hierarchy of sizes are missing.

Spatial planning territories (in the scope of local, regional and state government) and parts of territories must be distinguished. Parts of territories at the organisational of units of local government are subordinate to terms of use of which the highest level is the planning area. Further divisions of territory at higher levels of use overlap, are imprecise and create confusion in the preparation of spatial plans so that it is necessary to replace allocation terms with others that identify the issue of "territorialisation". Furthermore, terms for "defining

areas" or the whole classification of entire planning areas are lacking. Since the term area has many meanings it is necessary to more precisely define it. This can be done by adding an adjective to the term "area" which will lead us to the author who conditionally shaped the said term, and that is the phrase planning. Use has been precisely determined if we determine the term planning area.

A planning area is a unit of two or more planning zones at the highest level of planning within the framework of a conditional plot with a specific use.

CONCLUSIONS

The plot as a symbol for the establishment of a planning script at the state level in Croatia and in the wider area is barely noticeable. Spatial planning is most basically missing a hierarchy and identity of the terms of use. As there is no writing without letters, so there is no spatial planning without land plots. An important role in planning is played by the rules for the development of spatial plans.

Current spatial planning practice at the element-level uses the rules of professional terms: building plot, block, zone and building area. New spatial planning regulations in the Republic of Croatia leave out part of the terminology and introduce new terminology not based in science so that for the planning of a hospitality-tourism area, a building parcel is made equivalent to a zone or group of buildings in terms of a spatial whole. The noted planning with the mediation of the administrative government in a large part is forced and imposes its own solutions – projects.

This has far-reaching negative consequences for the economy and spatial development because it imposes solutions in planning which constrict existing planning rules and as a result plan implementation and work with them is made difficult.

At the state-level in Croatia and Italy rules for preparing spatial plans have been defined. These rules include terms and graphic marks for planning surface / areas which vary considerably from country to country. The said rules do not recognise the plot as a symbol for planning nor a hierarchy of units of use.

By analysing spatial plans we have determined surfaces and belts reminiscent of land plots. Surface plots are intended for the construction of buildings and especially for the organisation of agricultural and other land. Belt plots are intended for the construction and organisation of roadways and railways (tracks) and for the protection of natural areas (maritime and water demesne, springs, eruptions etc).

At the planning element level general terms in the hierarchy of units of use have been defined. The general terms from superior to subordinate unit of use are: Planning area, Planning zone, Planning block and Planning parcel.

Planning area is conditionally a superior unit of use and includes land with two and more planning zones. It is necessary to scientifically determine the criteria for determining planning areas.

Planning zone is conditionally a superior unit of use and includes land with two or more complexes or planning blocks.

Planning block is conditionally a superior unit of use and includes land with a group of buildings or group of building parcels which are framed by existing or planned roadway areas.

The term which conceptually replaces all types of parcels in spatial planning is Planning parcel.

A planning parcel

- is the smallest unit of use and is conditionally subordinate to all other units of use,
- identifies the size, shape and location of land,
- is divided into building, agricultural, forest, water and other land,
- includes measures for individual construction and organisation and other measures for the use of classified land and water areas.

REFERENCES

Albers, G. Haubner, K. Lang, H, Marx, D. Scholich, D. and Spiegel, E. (1983), *Grundriss der Stadtplanung*, Akademie für Raumforschung und Landesplanung, Curt R. Vincentz Verlang, Hannover, p.171.

Antrop, M. (2004), Landscape change and the urbanization process in Europe, *Landscape and Urban Planning*, Volume 67, Issues 1-4, 15 March, pp.9-26.

Colombo, G. Pagano, F. Rossetti, M. (1996.), *Manuale di Urbanistica*, Il sole 24 Ore Pirola S.p.A Milano, pp.1186-1193.

De Chiara, J. Crosbie, J.M. (2001), *Time-Saver Standards for Building Types (fourth edition) McGraw-hill*, New York, Chicago, San Francisco, Lisbon, London, Madrid, Mexico City, Milan, New Delhi, San Juan, Seoul, Singapore, Sydney, Toronto, pp.147-993.

De Chiara, J. Panero, J. Zelenik, M.(1995), *Time – saver standards for Housing and residential development, (second edition) Mc GRAW-HILL, inc*. New York, San Francisco, Washington, D.C. Auckland, Bogotá, Caracas, Lisbon, London, Madrid, Mexico City, Milan, Montreal, New Delhi, San Juan, Singapore, Sydney, Tokyo, Toronto, pp.30-54.

Gu, C. Shen, J. (2003), Transformation of urban socio-spatial structure in socialist market economies: the case of Beijing, *Habitat International*, Volume 27, Issues 1, March, pp.107-122.

Jakopec, V. (1997), Neki temeljni termini iz katastra zemljišta, *Zbornik radova 1. hrvatskog kongresa o katastru*, Zagreb, pp.313.-320.

Karlovac, M. (2008): *Teorija planiranja održivog turističkog proizvoda*, Školska knjiga, Zagreb.

Lin, F.T. (2000), GIS-based information flow in a land-use zoning review process, *Landscape and Urban Planning,* Volume 52, Issue 1, 5 November, pp.21-32.

Marinović-Uzelac, A. (1989). *Teorija namjene površina u urbanizmu*, Tehnička knjiga Zagreb, p.213.

Mirković, B. (1968), *Osnovi urbanizma, 1B*, Građevinska knjiga Beograd, pp.123-160.

Mirković, B. (1978), *Osnovi urbanizma, 1A*, III, Građevinska knjiga Beograd, pp.233-248.

Müller, W., Vogel, G. (1999), *Atlas Arhitekture 1*, I.G.H, pp.167-169.

Müller,W., Vogel, G. (1999), *Atlas Arhitekture 2*, I.G.H, pp.524.-525.

Owen, S.M. MacKenzie, A.R. Bunce, R.G.H. Stewart, H.E. Donovan, R.G. Stark, G. and Hewitt, C.N. (2006), Urban land classification and its uncertainties using principal component and cluster analyses: A case study for the UK West Midlands, *Landscape and Urban Planning*, Volume 78, Issues 4, 28 November, pp.311-321.

Pegan, S. (1996), Pristup izradi urbanističkog plana. // *Prostor : znanstveni časopis za arhitekturu i urbanizam*. 4 (1996), 1(11), pp. 95-108.

Pegan, S.(2007), *Urbanizam uvod u detaljno urbanističko planiranje*, Acta Arhitectonika, udžbenici i priručnici 5, Sveučilište u Zagrebu, Arhitektonski fakultet, p.173.

Poropat, A. (2000), Prilog pojmovnom i metodološkom pristupu mjerama kućišta - rezultati istraživanja // *Energy and the environment 2000 Energija i okoliš* / Opatija : Hrvatsko udruženje za sunčevu energiju, Rijeka, pp.291-307.

Poropat, A. (2002), Prostorni činitelji izgrađivanja parcele obiteljskih građevina na primjeru zapadne obale Istre. *Disertacija*, Sveučilište u Zagrebu, Arhitektonski fakultet

Poropat, A. (2003), Prostorni činitelji izgrađivanja parcele obiteljskih građevina na primjeru zapadne obale Istre. // *Prostor, Znanstveni časopis za arhitekturu i urbanizam*. 11[2003] (2003), 2[26], pp. 227-227.

Poropat, A. Brščić, K.. Velčić, E.. (2006), The Hierarchy of Plans of Physical Planning in the Republic of Croatia and EU // *International Congress, Energy and the Environment 2006* / Franković, Bernard (ur.).Rijeka, pp.139-152.

Poropat, A. Šergo, Z. Ružić, P.(2008), Provedba parcelacije zemljišta na primjeru detaljnih planova uređenja (1973.-2003.) // *Zbornik radova XXI. znanstvenog skupa o energiji i zaštiti okoliša : Međunarodni kongres Energija i Okoliš 2008* / Franković, Bernard (ur.). Hrvatski savez za sunčevu energiju, Rijeka, pp.501-514.

Prelog, M. (1957), Poreč grad i spomenici, Kolaričev narodni uni verzitet, Beograd, pp.191-200.

Prinz, D. (2006), *Urbanizam, Svezak 1. – Urbanističko planiranje*, Golden marketing – Tehnička knjiga, Zagreb, pp.30, 99-104).

Punter, J. Carmona, M. (1997), *The Design Dimension of Planning, Theory, content and best practice for design policies*, E& FN SPON, London, Weinhem, New York, Tokyo, Melbourne, Madras.

Vresk, M. (2002), *Grad i urbanizacija, osnove urbane geografije, peto dopunjeno izdanje*, Školska knjiga, Zagreb, pp.1-3, 36-37, 43.

Weber, C. (2003), Interaction model application for urban planning, *Landscape and Urban Planning*, Volume 63, Issue 1, 10 March, pp.49-60.

Yates M.H., Garner B.J. (1971), *The North American City*.

*** (1998), Pravilnik o sadržaju, mjerilima kartografskih prikaza, obveznim prostornim pokazateljima i standardu elaborata prostornih planova, N.N. 106/98, 39/04, 45/04, 163/04

***(2004), Uredba o uređenju i zaštiti zaštićenog obalnog područja mora, *N.N.*. 128.

*** (2004), *Urbanizam.net,* UPI-2M PLUS, Zagreb, p.98, 180.

*** (1996-2009), Zakon o vlasništvu i drugim stvarnim pravima, *N.N.* 91/96, 73/00, 114/01, 79/06, 141/06, 146/08, 38/09.

***(1958), Zakon o nacionalizaciji najamnih zgrada i građevinskog zemljišta, *Službeni list FNRJ,* 52.

*** (2007), Zakon o prostornom uređenju i gradnji, N.N. 76/2007; 39/2009.

PARCELA – UVOD U PLANERSKO PISMO

SAŽETAK

Svrha ovog rada je oživotvoriti univerzalna pravila planiranja prostora čije su oznake simboli koji podsjećaju na slova za pisanje teksta, a praktično su slika crteža. Cilj istraživanja je utvrditi opće termine za razradu hijerarhije namjene na četiri razine parcela. Metodologija istraživanja obuhvaća analizu dosadašnjeg načina planiranja prostora u teoriji i praksi, te iskustvo u izradi i provedbi planova prostornog uređenja.

Opći termini od nadređene do podređene jedinice namjene su: Planersko područje, Planerska zona, Planerski blok i Planerska čestica.

***Ključne riječi**: Parcela, planiranje prostora, namjena, hijerarhija.*

Endnotes

1 See "Dragonera":http://www.vodnjan.hr/web/dwn/sluzbene_novine/Sluzbene_novine_03-2006.pdf

2 See also, http://hr.wikipedia.org/wiki/Prostorno_planiranje

[3] Translator's note: acronyms for various planning documents are stated in the text as in the original Croatian. The English translations are as follows: PPŽ= Spatial Plan of the County, PPGZ = Spatial Plan of the City of Zagreb, PPPP= Spatial Plan for Areas with Particular Features, PPUO/G = Spatial Plan of the Municipality and Town, GUP = General City-Urban Scheme, UPU = Urbanistic Physical Plan, DPU = Detailed Urban Plan.

[4] Translator's note: please see the previous footnote for an explanation of these Croatian acronyms.

5 The author of this paper developed a number of regional plans and implemented their provisions. More or less all the spatial plans are based on the shaping of areas or spaces. See the content of graphic views from the list of spatial planning decisions at the city and settlement level by the Government of the Region of Istria :http://www.istra-istria.hr/fileadmin/dokumenti/prostorni_plan/ProstDokNaSnazi.pdf

6 The spatial area is conceptually questionable: where and when will it be applied, it can be interpreted in different ways. the ideal spatial whole is the Earth. The main spatial wholes in coastal areas are: *the narrow costal belt, the sea area, coast, islands* (The Program, 1999, points 6-10), a spatial whole up to 15 ha, hospitality-tourism use (The Regulation, 2004, article 12; glossary: The Act, 2007, article 2, section 2) and others.

7 Terms for plots and parcels were analysed by V. Jakopec, (processed) in the following manner: *A cadastre parcel is called a ciepac and lapat (Šulek, 1990. Hungarian-Croatian and Croatian-Hungarian dictionary (Janiszewski, 1912))*. 'Lapat' means piece, tatter (the Legal-historical Dictionary – Mažuranić, 1975). *The terms lapat and ciepac can be considered obsolete because they are no longer used (Dictionary of the Croatian Language, Anić 1994)*; *die Parzelle* is a German word which means *parcel and plot* (The Club of Engineers and Architects, 1881); plot (the Survey and Cadastre of Land Act, Parliament of the Socialist Republic of Croatia (SRC), 1968); the Survey and Cadastre of Land Act (Parliament of the SRC, 1974). Geodetic textbooks currently in use use the following terms: land parcel (Macarol, 1978); parcel, plot (Medić 1978); the Technical Encyclopaedia uses: unit of land, parcel of land (Tomić, 1979). We can also mention that the word 'parcela' (plot) comes from the French word 'parcellle', which in turn comes from the Latin word 'particula' which in translation means 'čestica' (parcel) (Svezak 5, JLZ, 1966-1969). In England the words parcel, land parcel, lot and plot are used. In Germany the words das Flurstuck, die Parzelle and das Katastergrundstuck are used (IFAG, 1995): Jakopec, 1997: 313-320. Building plot (The Spatial Planning Act 1973-1998), and most recently building parcel.
TRANSLATOR'S NOTE: for the purposes of this translation, the Croatian 'parcela' has been translated as 'plot' or 'land plot,' 'čestica' has been translated as 'parcel 'and 'građevna čestica' as 'building parcel'.

8 The rest of the definition reads: A building plot for the construction of buildings must have pedestrian access from a public roadway, a width of at least 3 m and must allow construction with its area and shape in accordance with the conditions set out by the spatial plan and rules of the profession. A proper building plot must have appropriate connections to municipal (communal) and power infrastructure. Only exceptionally can an existing building plot in a very valuable and protected historical area also have a narrow path, that is only pedestrian access (Pegan, 2007, 160).

9 Conceptually a zone has a wider meaning: "In geography, an area on Earth or in a heavenly sphere between two parallels. In botany, a vegetation belt on the Earth's surface. In zoology a belt of fauna on the Earth's surface and in the sea (e.g. subtropical zone). In climatology a warm belt on the Earth (hot, temperate and cold belts). Parmenid was the first to divide the Earth into 5 heat zones in the 5th century," Opća enciklopedija, knjiga, 709).

10 See a list of activities - Vresk, 2002,43; surface structure Marinović-Uzelac, 1989, 172-222.

11 In the further text of the Act, building areas contain the following concepts:
A separate building area outside the settlement as determined by the spatial plan of a large city, city and municipality is a constructed and/or non-constructed spatial whole outside the building area of the settlement exclusively for economic use without residences (manufacturing, tourism-hospitality, sport) and cemeteries,
The constructed part of a building area are constructed and prepared building parcels and other areas intended for various purposes as well as non-constructed and unprepared parcels of land with an area of up to 5000 m which form a spatial whole with the constructed part of the building area.
The non-constructed part of a building area is one or more immediately linked non-constructed and unprepared parcels of land with a total area greater than 5000 m^2.