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SUSTAINABLE SPATIAL DEVELOPMENT IN THE COUNTRYSIDE – SETTLEMENT PATTERNS IN THE SLOVENIAN ALPS

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TRAJNOSTNI PROSTORSKI RAZVOJ PODEŽELJA – POSELITVENI VZORCI V SLOVENSKIH ALPAH

izvleček

V članku želimo prikazati prepletanje različnih obstoječih enot namestitve v prostoru, ki izhaja iz preteklosti in je hkrati odraz novosti sodobnega časa. V zadnjih letih se pod vplivom globalizacije in socialnih in demografskih sprememb nenadzorovano spreminjajo želje in potrebe tako prebivalcev kot tudi obiskovalcev alpskega prostora. zato je treba ponuditi nove oblike preživljanja prostega časa in se prilagoditi vedno spreminjajočemu povpraševanju. Vedno bolj se opušča tradicionalna organizacija poselitvene strukture na podeželju in se prilagaja sodobnemu načinu življenja, drugačnim poselitvenim strukturam, družbenim in demografskim spremembam. Ti novi posegi so v drugačnem sozvočju z naravo, kot je bilo to v preteklosti. Predstavljene so nove oblike preživljanja prostega časa, kot so zeleni, ruralni, podeželski turizem itd. Vedno več je trajnostno naravnanih, bolj etičnih in odgovornih konceptov prostorskih posegov, ki ne vključujejo samo vprašanja varovanja okolja, ampak tudi kulturne, ekonomske in politične vidike trajnosti. Glavni problemi pri raziskovanju razvoja poselitve v slovenskih Alpah so bili: kako omogočiti sobivanje tradicionalnih poselitvenih vzorcev v neokrnjenih varovanih območjih? Kako zagotoviti sobivanje tradicionalne podeželske arhitekture in sodobnih objektov, namenjenih večjemu številu obiskovalcev? In kako združiti vse te elemente z zgodbo o privlačnosti?

V območju alpskega prostora je pomembna raznolikost razpršenih poselitvenih vzorcev za nadaljnji razvoj trajnostno naravnane stanovanjske gradnje in poselitve in hkrati omogočanje različne in pestre ponudbe preživljanja prostega časa.

ključne besede

trajnostni razvoj, Alpe, Slovenija, razpršeni poselitveni vzorci, eko turizem, primeri dobre pakse

"... Sustainable development stands for answering the demands of today's generation without endangering the capabilities of (future) generations to answer their own demands [World of Commission on Environment and Development, 1987]. The sustainability does not define the final situation (the state of being developed) but only the circumstances to be taken into consideration in making development-related decisions ..."
[Strategy of Spatial Development of Slovenia – SPRS, 2004: 8]. This thought is also the main guiding principle of this article, which represents the idea of intertwining of various existing accommodation entities within the space that originated in the past and stand for an apparent novelty in modern times.

Introduction

The needs and wishes of visitors and common users of wider space are unpredictably changing, guest's demands are growing, they are seeking diversity, undiscovered features etc. That is why the offer of activities to meet these demands must constantly adapt, change and take on new forms of spending leisure time. In the spirit of globalisation and glocalization a desire and demand has developed for untouched nature, cultural, historical and archaeological sites, first-hand experiences of practices and traditions of local communities, recreation and healthy living, etc. The location of accommodation (sleeping accommodation)

abstract

The paper aims to show the idea of intertwining of various existing accommodation entities within space, originating in the past and standing for an apparent novelty in modern times. In recent years, under the influence of globalisation, with social and demographic change, the needs and wishes of inhabitants and visitors of the Alpine Space have been changing unpredictably. We need to offer new forms of spending leisure time and adapt to the constantly changing demands. The traditional organization of settlement structure in rural space is being abandoned and adapted to a new way of living, different settlement patterns, social and demographic shift etc. These new interventions are in a different relationship with nature than they were in the past. New forms of leisure activities have been implemented, such as alternative, green, rural tourism etc. More and more the concept of sustainable, more ethical and responsible spatial interventions is prevailing, which does not only include the issues of preserving the environment but cultural, economic and political ones as well.

The key issues in studying the development of settlement in the Slovenian Alps were: How to enable the coexistence of traditional settlement patterns in the untouched protected landscape? How to ensure the coexistence of traditional rural architecture and modern architecture intended for a larger number of visitors? And how can these elements be connected in the »story about attractiveness«? In the area of the Alpine Space, the diversity of dispersed settlement patterns is important for further development of sustainability-oriented housing and human settlement while offering different and diverse leisure activities.

key words

sustainable development, the Alps, Slovenia, dispersed settlement patterns, ecotourism, example of good practice

frequently represents only the starting point in discovering unknown places.

The images of "a home in the country"were once connected with buildings of solid construction, classic materials, providing durability, safety and comfort. In the population's general cultural consciousness the images of a "rural home combined with a growing number of buildings around the courtyard"are still embedded deeply.

Great structural changes in the agricultural branch and also in other economic branches have had a fatal impact on the settlement system, on the style of settlement patterns and building typology (and it continues today). The current organization of settlement structure in rural space is in different relationship with nature than it was in the past with the erection of rural homes. The changes in the production system of settlement space, based on mixing and complementing of agrarian and non-agrarian functions, influenced the changes in previous settlement patterns and of their constituent parts — "rural homes"— by introducing new shapes [Fikfak, 2001]. The new spatial organization, in contrast to the hierarchically closed spatial order of towns and villages, is not a chaotic disorder. It is a new, complex, spatially and temporally open system where the historical sediment does not exclude introduction of new shapes.

We can find positive/negative development orientations in new

and old (traditional) patterns. Gradually they can be formed into new, quality connections with an existing spatial identity: multi-layered forms of settlement patterns where settlement structures mosaically intertwine with each other. New settlement patterns must surpass the present wild growth and expansion of settlements and replace it with an appropriate structuring of new spatial forms in relation to the rural environment and the existing built form, which is part of the cultural landscape.

With the new principle of density, inner settlement structures as well as countryside settlements will be arranged. The outer, dispersed space will regulate itself, based on the infrastructural net, allowing self-organization, arranged on the principle of unplanned structures. These systems function as creative processes producing intertwinement: a variety of intertwined patterns which are stable or instable, definitive or indefinitive, but always interesting and dynamic, moving and vibrating with life.

Intertwinement of sustainable forms of settlement, tradition and activities in rural areas

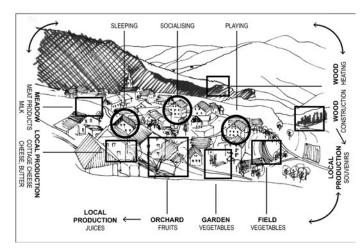
In the decades of the growing environmental and cultural awareness and many public discussions six basic ideas developed; these ideas are defined by Jacobs [1999] as the integration of environment and economy, concern for the future, environment protection, intergenerational justice, quality of life and the principle of cooperation. The consequence of spreading the awareness on preservation and protection of natural environment, increase of cultural sensitivity, is that settlement development in space and the expansion of settlements involves a growing attention paid to the introduction of sustainable principles.

On the other hand a great deal of interventions may also have negative impacts on the space and environment: they are mostly demonstrated through the mass nature and large scale tourist capacities. Owing to high tourist consumption, they do tend to have favourite economic effects but at the same time they are the reason for the degradation of the space, the degradation being the most pronounced when saturation arises and its bearing capacity is exceeded. Bearing capacity means "the degree of development which is still allowed without detrimental consequences for the resources, to wit, environment" [Hudman and Hawkins, 1989: 238–239]. The findings and critiques of negative impacts which the development of human settlement and establishment of degradation within the space "...have led to the calls to a more environment-aware and culturally acceptable forms of tourism as well as to changes in tourist practice and development of alternative forms of tourism" [Bajuk Senčar, 2005; Smith and Duffy, 2003].

Tourism is a form of the biggest peaceful migrations of people and at the same time a way of life, which affects their understanding and experiences about their journeys [Kovač, 2002: 4]. It is a phenomenon of a society of plenty and consumerism and one of the forms of leisure activities [Pogačnik, 2008]. Furthermore, it is a highly dynamic activity of both, modern economy and society, and it attains a high growth rate. Tourism has to do with the consumption of goods and/or services which are unnecessary

in their essence. They are used because they bring positive and satisfying experiences that differ from those we otherwise experience in everyday life. Tourism has numerous other impacts on economic and social development of individual areas, which is the result of the consumption by tourists. Moreover, there are numerous impacts on the landscape [Jeršič, 1990: 11] and at this point its potential function having to do with environment protection need to be emphasised. It is based on natural and cultural sites which need to be preserved by means of special protection regimes and procedures of care [Ibid.].

As an alternative to a traditionally strong mass tourism, new forms of activities have emerged, attracting and motivating modern people in their use of free time. Since 1990, new forms of leisure activities have been implemented such as alternative, green, rural tourism etc., however ecotourism is the expression most frequently used. It emphasises the contact of the host with the guest as well as that of the guest/tourist with the environment. It is not only the intensity of the experience of the nature and environment that counts: the new form of leisure time activities should involve educational elements, research and presentations/explanations as well [Fikfak, Rozman, 2009]. Consequently, ecotourism means journeys to natural areas but with a responsible attitude towards nature which at the same time stimulates well-being of local population [TIES, 1990]. Ecotourism is a concept of sustainable, more ethical and responsible tourism which does not only include the issues of preserving the environment but cultural, economic and political ones as well [Holden, 2006]. It is about a concept which does not interpret sustainability as an objective in its own right but as an oriented philosophy which includes the interaction of individuals with environment and space (Figure 1). An ever growing number of tourists chooses for their holiday destination culturally and traditionally rich rural areas which enable direct contact and experience of space.



Slika 1: Trajnostni krog. Razmišljajmo trajnostno tudi v zasnovi in shemah enostavnih konceptov turističnih nastanitev.

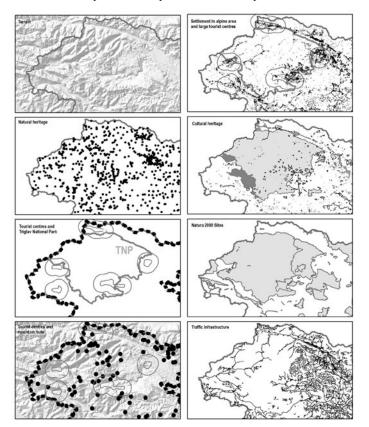
Figure 1: Sustainable circle. We should be thinking in terms of sustainability also within the concepts and schemes of simple settlement.

The research was aimed at the search or analysis of spatial criteria about strategic shift in development of settlement patterns and

with the related activities:

- what is the spatial shift in modern sustainable concepts of land planning;
- the identification of quality elements that influence the design of new living patterns in view of revitalization of the existing patterns for tourist use;
- what are the elements or factors of traditional architecture that are offered as an existing quality by current settlement area:
- the identification and understanding of living culture and leisure activities and with changes in contemporary way of living which is reflected in the design of new interventions in the landscape.

In light of the above problems and bases the following goals and outcomes of the study were outlined: outline of distinctive features of the analysed area – Triglav National Park (TNP) (Figure 2), valorisation of the built area, development of settlement patterns in view of promotion of sustainable tourism development, evaluation of quality traditional architecture with the purpose of accommodation use and, finally, the conclusions and perspectives for organisation and management of a wider Alpine rural area. The key research question was: Can the traditional spatial dispersion of settlements in areas of difficult accessibility provide a new opportunity for spatial development with sustainable orientation, which can through seemingly diverse settlement patterns allow for quality preservation of natural landscape or built-up cultural landscape?



Slika 2: Analiza in valorizacija prostora z različnih vidikov. Figure 2: Analysis and valorisation of space from different perspectives (TNP).

Sustainable development: the concept of requirements and limitations

The attitude towards sustainable development is not only about how the society and individuals manage waste, their behaviour in the protected areas, their use of drinking water and other natural resources, it is about and above all about understanding the process of spatial planning and management [Zavodnik Lamovšek, Fikfak, 2010: 10]. Kajfež Bogataj [2010] defines sustainable urbanisation as a long-term developmental perspective which enables and allows intertwining of various planning strategies. In our modern time of global industrialisation and information society, the novelty in the attitude towards sustainable development is above all in the changed manner of thinking which does not follow the consequence of an action but enables us to make a transitory assessment and therefore a disclosure of the impact of the planned activity on our environment. We need to think about its impacts and consequences, change it if necessary in order to preserve to the highest degree possible not only local but world resources as well [Lemon, Percy, Wright et al., 2004]. The idea has been simplified to a certain extent, yet with the definition of sustainable development [World Commission on Environment and Development, 1987: 43] a novelty introducing two key concepts emerged [see also Plut, 2007]:

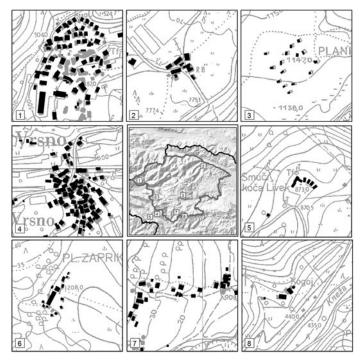
- the concept of requirements, economic and social security, intergenerational justice (responsibility), and
- the concept of limitations on the basis of which we need to exploit the spatial and envrionmental capacities to such an extent as to enable us to satisfy not only present but future requirements as well.

The search for the balance between the preservation of the natural environment and the requirements of man and the preservation of cultural heritage at the level of the settlement system is a process which continues and complements the idea of life in a green cultural landscape. The classic rural settlements with traditional farm systems, village settlements and rural culture of living, is a form of culture which is rapidly declining in this age of technology and global enterprises. The main goal of several strategic documents is to combine various activities in the rural hinterland that will stimulate the conservation of traditional settlement types while adding new values to the settlements following the principles of protecting the existing identity of a region and settlements. Through development, rural settlements shall connect to towns with central functions and shall implement activities into their environment for the general user. The farming activities, however, shall be either specialised, or have the function of the cultural region keeper.

A method for identification of dispersed settlement patterns in the Alpine Space

During the recording of space usage we limited ourselves to the analysis of settlement patterns in view of the presence of the following physical structures: i) isolated (individual) farmstead, ii) isolated building, iii) hamlet, iv) village, and v) town or city. In this way in the Triglav National Park (TNP) area different settlement patterns (Figure 3) and their relationships were

mapped. At this stage, the morphological characteristics of the settlement pattern were not part of our investigation. Based on the field work, the recorded settlement patterns were inserted into the topographic map at scale of 1:5000. In producing the map, all urban and central settlements were excluded as well as areas exclusively serving one activity (clusters of self-catering houses, sport and recreation zones, business zones etc.), which are not related to the traditional rural space and living. The field work was also accompanied by interviews of local residents, since the goal of the study was to identify the interrelations of the settlement patterns and how the different auxiliary tourist activities help to conserve the settlements in remote areas. We were especially interested in the criteria that were being considered by individuals when starting a new business (e.g. rural tourism), establishing new mountain huts, starting new production, door-to-door food sales and similar.



Slika 3: Različni poselitveni vzorci in medsebojni odnosi. Figure 3: The recording of different settlement patterns and their relations. The nucleation is presented as a single pattern. The study of relations with the neighbouring patterns, the distance between them, the distance between the same patterns etc. agreed with the visual assessment: the system of dispersion in space of different patterns which complement each other. Settlements on map: 1. Sedlo, 2. Zgornja Radovna, 3. Planina Blato, 4. Vrsno, 5. Livek – Nebesa, 6. Planina Zaprikaj, 7. Tolminske Ravne, 8. Kneške Ravne (Kogoj).

In interpretation of the results we became aware of the importance of people's attitude towards their living environment in relation to the conservation and setting up of new patterns preserving the traditional landscape settlement. On the chosen study areas several tests were performed using GIS computer tools and the proper criteria tool for an easier evaluation of the results obtained, while the following conclusions were made: the visual assessment of space provides equally important information, complementing the analysis of distances (Roberts, 1996: 24, Waugh, 1990: 340–42, Prosen et al., 2008) between the analysed

physical structures (i–v). In doing this, we took into account the terrain characteristics, solar illumination radiation, orientation etc., which were analysed by using the Digital Terrain Model (DTM). In view of quality, visual assessment of space is the one that, together with the information gained during the interviews, gives us the information about usage, volatility and quality of space.

The analysis following the methodological approach mentioned above was performed in the areas of Kobarid and Bovec municipalities. Interestingly, both areas are partly within, and partly outside, the TNP area. At the same time, both municipalities as a whole are part of the Alpine Space.

The quantitative analysis using the GIS tool and, on the other hand, visual field assessment and interviews gave similar results. Importantly, there is no rule in the repetition of identified dispersion of some patterns, but rather it depends on the geographical position in relation to the central settlement and organization of built forms along the main road.

Structural changes and development of the Alps

On the European scale, the Alps represent an interesting space for examining demographic, social, cultural and economic changes. Owing to their geographic distinctive features, difficult accessibility and passability in both directions, namely North-South and East-West, the Alps have historically represented a special region within the European space. Recently, The European Commission [Internet 1], and other international organizations such as CIPRA (French abbreviation for Commission Internationale pour la Protection des Alpes) [Internet 2] have concerned themselves with the quality of life in the Alps, introducing equal employment opportunities, resilience of towns, with demographic changes and topical problems in the Alps; together these organisations have found that the Alps are our common living space, a place of our leisure activities, that it is in the Alps where our future lies and it is there where we must cooperate. In the centre if its endeavours, CIPRA emphasises the principle of sustainability so that life in the Alps will be attractive also for the next generations and promising from the points of view of ecology and society. CIPRA, founded in 1952, operates as a non-governmental non-profit organisation. Its seven representative bodies, one of which is Slovenia, and about one hundred member organisations and institutions make CIPRA an important pan-Alpine network. The basic motive for the way of thinking and operating is the Alpine Convention [Internet 3] that owes its origins to an initiative by CIPRA. In 1991, most of the Alpine countries and the European Union

In 1991, most of the Alpine countries and the European Union signed it as a legally binding document. This document is a guarantee for trans-border cooperation among the countries, regions and local communities in the Alps. The protocols and documents of the Alpine Convention demonstrate that cultural landscape is an important part of the documents on sustainable use. Thus the Mountain Farming Protocol [1994] provides certain international level measures for preservation of mountain agriculture, convenient for individual areas and environmentally acceptable. It recognizes and ensures the essential contribution of the agriculture to preservation of settlement and sustainable

economic activities, in particular through the production of characteristically quality products, to the protection of natural living space, prevention of natural disasters, maintenance of the amenities and recreational values of natural and cultural landscape and culture within the Alpine space. The aim of the Mountain Forest Protocol [1996] is the preservation and, if need be, spreading and improvement of the stability of mountain forest as sustainable living space. The Tourism Protocol [1998] contributes to the sustainable development of the Alpine space with such tourist activities which are acceptable to the Alpine Space. The development of the Alps-friendly tourism requires balancing of its offer, i.e. high quality having a priority over mass tourism. In addition, as its by-product, agriculture in the Alps creates a cultural landscape which is important for preservation of biotic diversity.

Structural changes have caused the Alps to be losing their traditional rural peasant image and lead to an ever growing urbanisation [Bairoch, Batou, Chèvre, 1988, Mathieu, 1998; in: Batzing et al., 1996: 336]. Certain areas have given in to the implementation of new economic activities. However, on the other hand the process of such urbanisation has had an impact also on vacating and closing down of less attractive, more poorly geared and less accessible areas of the Alps. Even to this day it has been repeated over and over again that "the parallel product of the Alpine agriculture is an untouched and consequently aesthetically attractive landscape"[Jeršič, 1999]. It is the agricultural use that has substantially contributed to a finely broken down, diversified and ecologically variegated Alpine landscape which - from the point of view of human settlement - has nevertheless remained within the limits of a rational soil use. Along with these structural changes new urban programs and new urban built patterns are moving in the rural area, hence the agriculture has become a trade- and economyorientated branch and is no longer solely orientated into food production.

The contrasts between the development and protection-related interests are best expressed in the area of valuable natural and cultural features and in certain most frequently visited areas of the Alpine Space. In the vicinity of larger towns excessive loading occurs [Pogačnik et al., 2009]. Broggi [1998: 120, in: Plut, 1999] has established that the Alpine landscape is threatened by a major change as soon as within the time limits of one or two generations. He has raised several basic questions [Ibid.]:

- 1. The question concerning the future of the Alps: will the Alpine Space be vacated in the future and become an area of wilderness?
- 2. The question concerning the preservation and survival of Alpine agriculture, in particular on larger surfaces, and
- 3. The question concerning the costs of landscape care (will higher costs be borne by everyone or by tourism only?).

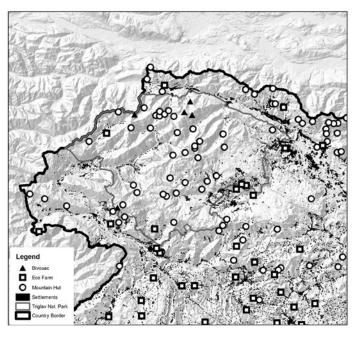
The Alpine Space will undergo major changes also from the point of view of climate changes. The weather phenomena are becoming more and more extreme which is why the structure of forests will change, changes will occur in the methods of

farming and the cultures that will thrive in the changed climate conditions; furthermore, adjustment at all levels of living will be required. The measures against the climate change impacts, which are put into operation, include: over the last 20 years artificial snow packing which – through retaining and supplying sufficient quantities of water – has also negative impacts on the environment; planting trees along the edge of ski slopes and a planned creation of natural shadow; planning ski runs on north-facing slopes (which is not considered the most popular measure by the skiers longing for the sun); machine-grading or bulldozing, arranging and adjusting of ski runs (on several ski slopes throughout Europe this particular measure has proved to be very harmful since the modified terrain has shown severe erosion-induced damage of the terrain, etc. [Abegg et al., 2007: 37].

Under the Alpine Convention, on the basis of cadastral communities the surface of the Slovenian Alps comprises 7,336 km2, which represents just over a third [36.2%] of the territory of the state [Plut, 1999]. In the Slovenian Alps, 1,186 km2 of the territory, to wit, 14.3% of surfaces [Ibid.] are under protection. The protected areas of the Slovenian Alps represent as much as 89% of all protected surfaces of the state, which on the one hand emphasises the extraordinary nature-protection meaning of the Slovenian Alps while at the same time, in view of the landscape variation of Slovenia, it represents a major non-equilibrium [Ibid.]. The Strategy of Spatial Development of Slovenia [2004] states for mountain areas, where the entire Slovenian Alpine Space belongs, that ecologically-oriented tourism, ecological farming and the use of renewable energy sources are spurred; for this, as a rule, there are more opportunities in these areas, and a support is ensured to mountain and hill communities [Ogrin et al., 2011].

The relief is one of the main factors which have had an impact on the emergence of settlements in the area of the Slovenian Alps. The majority of rural settlements in this area is characterised by their being stuck at the edges of valleys, sunny slopes and slightly sloped river terraces at foothills and main roadways (Figure 4). As an example we have provided several characteristics of the cultural landscape of Zgornje Posočje (a part of the Slovenian Alps) which also belongs to remote rural areas. In this area the settlement structures emerged in the form of dispersed settlements on less favourable positions (Drežnica, Vrsno, Krn, Livek), on higher terraces (Ladra, Smast, Libušnje, Kamno) and in secondary valleys (Lepena, Bavšica, Trenta) between approximately 250 m and 960 m above sea level (Strmec). The consequences of natural disasters (earthquakes, natural hazards) and social impacts (wars, industrialisation, changes in agricultural management) contributed over time to the image of cultural landscape which, owing to mass discontinuation of farming and emigration of young population, became more and more vacated. Consequently, the number of abandoned villages grew, life on isolated farms stopped, they were either left to ruin or taken over by non-locals. Discontinued, overgrown and unutilised agriculture areas sometimes obtained with difficulties slowly but persistently kept changing the image of the landscape. In more recent time, the risk of the existence and preservation

of architectural heritage, non-awareness and disorganisation, in the same way as in other environments, have been affected by the desire for something new, which also includes tourist development that brings foreign impacts into the landscape.



Slika 4: Karta razpršenosti naselij in objektov v Julijskih Alpah, Slovenija. Figure 4: The map shows the dispersion of settlements as well as visitor orientated attractions throughout the Alpine Space.

The main findings of studying the settlement system of the rural space in the Alps are:

- The dispersed system enables farming and controlling of a wider area, without the need to control large distances, however it influences the maintaining of social contacts (a good example being farms in the United States).
- More nucleated patterns may result in the reduction of distances between neighbours, so that small hamlets, individual farmsteads can function as part of settlements, while at the level of observed physical structures they are still part of a dispersed pattern.
- The nucleated pattern of settlement represents those situations where most of the dwelling units are concentrated, functioning as a unified pattern.

Concept of human settlement in the Slovenian Alps area

The key issues in studying the development of settlement in the Slovenian Alps are as follows: How to enable – within an alpine landscape – the coexistence of traditional settlement patterns in untouched protected landscape?

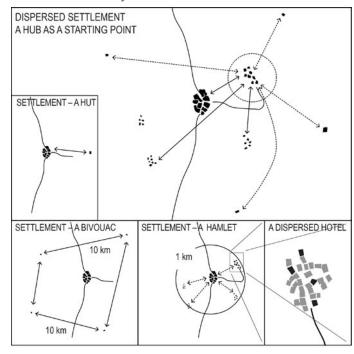
How to ensure the coexistence of the traditional rural architecture and modern architecture intended for a larger number of visitors? And how can the elements be connected in the "story about attractiveness", which will serve as a foundation for preservation of traditional settlement patterns and allow the development of new forms of settlement?

In examining rural space and planning new activities affecting the environment for the purposes of sustainable development of settlement the following question is raised: Which locations at the local level are the most important for settlement? How does the settlement process react to social change and to what degree do the sustainable principles influence the development of activities? How are the principles of spatial development with spurring sustainability-related values transposed into the development of built patterns? How does all of this unfold in the Alps that are "... a value and a challenge at a worldwide level, a wish of every mountaineer or traveller"[Internet 5].

Dispersion as an element of sustainable human settlement

In the out-urban space of the area of the Slovenian Alps several types of settlement structures (Figure 5) can be observed in which activities intertwine and, built at the same time, they depend on the vicinity and impact of central settlements and available infrastructure of the space [summarised after: Gabrijelčič, Fikfak, 2002: 23–24]:

- Rural tourist areas: hilly areas, well geared with tourist infrastructure, cause peasant emigration of young people and frequently disrupt the existing agricultural production foundation and the traditional settlement pattern. Exaggerated growth of tourist capacities often leads to local over-settlement and excess loading of the environment with the simultaneous vacating of the fringe areas. The existing settlements with their architecture and high quality ambient are an important part of tourist offer. Central settlements, to wit, urban structures which have been changed due to the pressures of urbanization belong among these structures.
- Remote rural areas: They comprise certain hilly and mountainous areas where forests and agriculture prevail including scarce, dispersed settlement. In many areas of this type we face decreasing numbers of population or even complete vacating of areas which are becoming the objective of sustainability-oriented tourist development of rural countryside.



Slika 5: Vrste naselij v kombinaciji z razpršenimi prostorskimi strukturami. Figure 5: Several types of settlements combine the dispersed space structure.

From the point of view of the development of modern forms of tourism we are mainly interested in the remote rural areas where dispersed settlement prevails. The latter is defined in the Strategy of Spatial Development of Slovenia [2004] as a spatial form, to wit, a concept which defines a large number of small settlements dispersed in the space, which are classified as to their type into fragmented, dispersed and scattered settlements as a part of the autochthonous settlement. Furthermore, we can ascertain that the planning of rural countryside [Prosen, 1992, 2003, Gabrijelčič et al., 1997] from the point of view of dispersed settlement within the Slovenian space is a poorly researched area which has above all to do with the development within the settlements and the issues of settlement of open space. The emergence of dispersed settlement is frequently mistaken for dispersed individual buildings which are perceived as a form of negative spatial development [Drozg, 1996]. Dispersion as a settlement pattern represents the situation in the space where farms, hamlets and towns are dispersed throughout the entire area. This system enables farming and management of a broader area without the necessity of managing substantial distances. More nucleated patterns may have an impact on distances between neighbours being reduced so that smaller hamlets, isolated farms function as a part of a settlement; they are, however, at the level of an entity still in the form of a dispersed settlement pattern [Fikfak, 2008]. The discussion on dispersion (Figure 5) can be concluded with the thought that within the space there is no an entirely homogeneous pattern, whether nucleated or dispersed, since the former would mean that everyone would be living in a single facility, while the latter would mean that the space would be settled in a perfect uniform manner.

Various forms of rural traditional settlement in the area of the Slovenian Alps represent a system which avails all the potentials for balanced spatial development with the introduction of modern forms of sustainable activities. At the same time the relationship between the protected areas (for instance, the Triglav National Park), rural countryside, settlements of central character, to wit, small- and medium-sized towns within the area of the Alps and large cities on the fringes of the Alpine Space brings about a special settlement system which enables and stimulates sustainable development of the landscape.

In researching human settlement in the rural countryside in the area of the Alps we have focused only on the areas which are located outside urban settlements and protected areas. In defining the settlement patterns which are a building block of the so defined area investigated in the Alpine Space we have come to the conclusion that the present diversified forms of settlement (defined in: Fikfak, 2008; rural settlements, villages, hamlets and isolated farms and other minor settlement structures – Figure 4) outside the areas of central settlements and their urban agglomerates are still based on historic and autochthonous settlement patterns. In the area of the Slovenian Alps urbanisation has been changing above

all due to the impact of structural changes in the economy, which is space-wise best reflected in the difference among the south hillsides of the Alps which are the most endangered as far as development is concerned, and the broader development in the areas of central settlements which were under the pressure of development of all types of tourism. The space-and development-related questions of the Alps are described in more detail in a publication with the same title which is basically a summary of the results of the project DIAMONT [Internet 6].

For the purpose of studying the settlement patterns in the countryside within TNP the following spatial analyses were made:

- in the selected areas within the Alpine Space at scale of European cities (the definition of the relationship: the Alps periphery–border metropolitan cities–protected areas within the Alps area–countryside or the space in-between);
- formation of standards and a field analysis of the selected areas within the Slovenian Alps and the analysis of urban settlements or towns with central character;
- quality sustainable factors of tourism in rural areas and its relation to settlement – for narrow or wider area;
- limitations and influences on development, redevelopment and recultivation of degraded areas, which negatively influenced the settlement process by reckless settlement development and other forms of tourism, and;
- analysis of qualities and deficiencies for organisation, use or living in the countryside within the areas with large potentials for establishment of principles of sustainably orientated settlement.

The entire area of the Alps shows the presence of many and variegated forms of settlement patterns which preserve the traditional autochthonous form. They change according to the location, purpose and form of living and stimulate the sustainable manner of research, use and experience of a broader tourist space. Below, we present some examples of settlement forms which derive from tradition; however, despite the fact that they belong to the type of remote rural areas they have undergone modern activities affecting the environment and the development in the form of sustainability-oriented rural development (resulting in architecture which, however, does not always abide by the principles of sustainability). These individual elements that are spatially dispersed represent focus points of interest and development.

A modern tourist settlement, confirming the continuation of the idea of the typology of traditional settlement patterns – example of good practice

In this environment a hamlet called Nebesa ("nebesa" is Slovene for "Heaven"), in Livek, Slovenia, with tourist contents emerged as a continuation of the dispersion of settlements.

The distinctive feature of Nebesa is that it is located at the crossroads between the Venetian Slovenia and Goriška brda, i.e. between the Alpine world and the Mediterranean, between the Alpine pastures, dairy-farming and vineyards. The tourist complex with accommodations (project by architects R. Klanjšček, K. Pavlin, A. Lavrič, 2001–03) was built where a ski cabin used to be. Its planning and design follow the pattern of dispersed construction of high mountains but in so doing they take into consideration the exceptional surroundings which enables us to swim to Krn, sail to the Gulf of Trieste, ski the Kanin mountains or test ourselves on the fronts of World War I [Internet 7]. The complex with its unmistakable views into the width of the space, built in the 21st century at the location and on the foundations of the previous century, undoubtedly continues the historic concept of dispersed settlement of small settlements in the broader surroundings.

Klanjšček adds: "In view of the concept and position we have followed the example of traditional cottages for pasture and dairy-farming" [Internet 8]. A member of the panel and professor at the Faculty of Architecture in Ljubljana, Aleš Vodopivec, says in the rationale that with the Livek settlement Klanjšček "returns to the roots of our architectural heritage", that it is a "modern, technologically advanced architecture which is locally recognisable without imitating historic elements" and a "critical commentary of the world of spectacular images and fashion trends" [Ibid.].

Within the context of development of dispersed settlement the Nebesa settlement has a special meaning. The distinctive feature of the location with simultaneous opening of "heavenly"views into the space continues the story of the past, one of preservation and protection as well as that of space management. It is for this very motive that a special rhythm of life is led in this complex, which keeps its distance from mass tourism; each individual has their own individual ambient which is complemented by the story of the local character being intertwined with the system of hiking trails and cycling routes. In this way the complex, which still survives despite its modest six facilities, is connected with tradition and hospitality of the near space (connection with the farms). In evaluating the activity we most certainly cannot ignore the issue of sustainability as a phenomenon of the comprehensiveness of the activity at the level of architecture. The exceptionality of the location has an impact also on the peculiarities of the climate and disadvantages which are brought into the living by the activity. Many critiques assess this aspect as a negative one; however, the skill of building up by means of modern technologies and improving the infrastructure partly impacts the visual appearance of the complex.

Example of promoting balance in the cultural landscape by the typology of constructing mountain bivouacs

An example of spatially dispersed settlement in the area of the Alps is represented by the facilities which in the past were used as shelters to shepherds and for the activities of mountain pasturing. This has become a seasonal activity and it resonates in the architecture of the mountains which left a special cultural character on mountain pastures. Shepherds' bivouacs originate in traditional farm architecture of mountain valleys which – under the influence of the factors of mountain nature (wind, snow, ice) and special requirements of mountain pasturing cattle breeding - developed into a peculiar type of architecture of the mountains. We find that an equal architecturally functional solution has evolved in traditional examples of shepherds' bivouacs which we today recognize in various areas of the mountains and among which there was no information connection. It can be deduced that the principles of the mountains-related architecture are universal whether we have in mind the mountains of Bohinj, those of the French Alps or shepherds' bivouacs in the Himalayas [Kajzelj, 2011: 5]. Within the space we recognise various forms of bivouacs in the mountain region in the areas of mountains, the so-called collective bivouacs or isolated posts. Collective mountains with their interesting and logical patterns of settlement are also an important stamp of the social life of the native population which was in many ways far more democratic than it is today, since the hierarchy of the placement of the shepherds' dwellings is only reflected in their relationship to the central cheese-producing facility [Ibid.]. Nowadays, the mountainrelated architecture does not only represent a valuable and priceless example of urban culture in Slovenia but of all Alpine nations as well; through ecologically renewed social awareness the appreciation of the mountain world is growing. Their existence represents an important tourist category of modern mountain tourism which has a clearly classified evaluation of tourist objectives. The mountain-related culture and architecture (Figure 2) gain in importance for the very reason that they have emerged under extreme circumstances at the edge of civilisation and in isolation from outside world. The society generally considers that architecture and settlement culture of the mountains need to be preserved, protected from dilapidation and uncontrolled tourist activities. Even more important are the vision and decision by the society that mountains should be given a new use in terms of the requirements of modern age mountaineering and hiking tourism, since by doing so their existence in the future would be taken care of in the best possible way. A wilful change in the intended use of the abandoned bivouacs and cheese-producing facilities, i.e. change into tourist lodgings, apartments, sheltered or non-sheltered shelters, is a way to keep them alive, and in so doing we would provide mountaineers and tour skiers with accommodation, shelter or starting points for climbing the mountains at many important locations.

In order to comprehensively meet the requirements of those who use tourist routes and individually research the space, we need to continue the settlement dispersion by means of modern individual activities affecting the environment. There are two such examples within the space of the Slovenian Alps. One of them is the bivouac at Kotovo sedlo (project

by architect M. Kajzelj, 2004–05). In the immediate vicinity there is the peak of Jalovec (2645 m) which – in the Julian Alps – represents an important destination for mountain hikers and alpinists in winter and summer alike. The construction of an emergency shelter on this location is critical for the safety of mountaineers. The second such example is the bivouac at the ridge of Stol above Breginje (project by architect M. Kajzelj, 2002). The construction of this bivouac was meant as a promotion of cross-border connections of two remote areas, that is, the Terska Valley in Italy and Breginjski kot in Slovenia, as a project of small architecture at a strategic point of the network of broader tourist infrastructure.

A good example of a sustainable building, which follows the principles described above, is the Monte Rosa Hut (Switzerland) which has been designed by the Swiss Federal Institute for Technology (ETH Zürich) and the Bearth & Deplazes Architekten. The facility itself has been designed as a technologically sustainable facility (wood as the element of construction and low-energy concept) and it abides by the principles of dispersion of a built form which sustainably adjusts and takes care of better living conditions of the hikers. Since the hut is a three-hour-walk away from the civilisation it is necessary to ensure its being as self-sufficient as possible: this is why the facility is predominantly (90%) self-sufficient, it has an underground tank housing 200 cubic metres of melted snow and rainwater. "We begin by asking ourselves where everything we unthinkingly consume every day comes from. The answer is, of course, from a highly complex social space, a technologically advanced environment geared to everyday needs, and not a landscape viewed through the rosetinted glasses of nostalgia or the romantic idyll of seemingly abandoned alpine huts, cottages in high meadows"[Deplazes, in: Nemetschek Vectorworks, Inc., 2011.]

Intertwining of dispersion and concentration as a sustainable concept of development of settlements?

In researching the notion of dispersed settlement, to wit, building block of sustainable tourism there is an important fact, namely, the fact originating in the definition itself of the contrast between the notions of dispersion and nucleation. If dispersion is based on the idea of individuality, nucleation originates in the idea of community [Fikfak, 2008]. Consequently, we can reasonably conclude that the idea of sustainable tourism takes into account the advantages of both spatial models:

- dispersion which continues in the idea of individual research of a space, and;
- nucleation which confirms the idea of living in a community as a model of sustainable development of settlement.

This duality which is enhanced by the sustainable model of settlement (in conjunction with sustainable tourism) is best illustrated and defined space-wise by the model of a dispersed hotel ("albergo diffuso").

Example of a dispersed hotel as a continuation of a traditional pattern

Where does the concept of the "albergo diffuso"— a dispersed hotel come from? Its origin can be traced back to a single dramatic event, namely the earthquake in 1976 in Friuli and in Posočje [Confalonieri, 2011]. Particularly in Friuli people began to think that the nearly uninhabited villages could serve as new tourist destinations [Ibid.]. The first experimental transposition of the "albergo diffuso"into practice was carried out by the local council in San Leo in Italy (Montefeltro). There, by restructuring old but culturally important buildings in the centre of small historical villages instead of building new tourist complexes they actualised the idea of dispersed accommodation rooms, thus upgrading the idea of building a network of tourist [Ibid.] accommodations.

A dispersed hotel as a form of a "horizontal" building encourages tourist activities and is most appropriate to be developed in smaller villages which we come across in the rural countryside and whose historic and architectural features are worth preserving. A visitor is offered to live in the village – in a hotel which offers relaxing holidays through discovering culture, tradition and events, culinary delights, sports and recreation as well as the feeling of the rhythm of life in an environment away from modern rhythms of the stresses of urban life (retreating and becoming oblivious of communication technologies). A dispersed hotel protects the cultural landscape, environment and society, the characteristics which are the main obstacles in sustainable development-oriented in space [Ibid.]. Apartments, to wit, individual accommodation entities are located in a rural environment where the rhythm of life follows the seasons in the life in a village. Space facilities are located in renewed traditional lodgings in the village cores and have a great historic and architectural value. Basically, a dispersed hotel is a single accommodation entity but with rooms that are located in different buildings across the village, usually no more than 200 m to 300 m away from the central hub. At the same time the hub serves as reception, information office and a service centre for tourists [Ibid.]. The main topic of the concept does not demand green field investments or any other type of construction [Dropulić, Krajnović et al., 2008]. It is directed towards the use of what already exists with the purpose of increasing the value of a tradition and obtaining positive economic results within sustainable development [Ibid.]. The main purpose of a dispersed hotel is that in addition to providing an advantage of the opportunity in the surroundings it unites local community through the activities the tourists perceive as brand new and interesting, thus enhancing mostly local long-term results and the satisfaction of the tourists. We can therefore conclude that this kind of model construction and preservation of traditional culture is an innovative form of hospitality that as a form of promoting sustainable development provides the possibility and the opportunity for a balanced use of local resources. Since the development of a spatial composition of this type there is no additional environmental loading with large new

complexes (housing, social, tourism, shopping, etc.) we can say that a dispersed hotel as an idea and a concept of living is adaptable to different environments and offers sustainabilityoriented space opportunity of territorial development as a traditional cultural landscape widget.

Conclusion

In the area of the Alpine Space, the diversity of dispersed settlement patterns is important for further development of sustainability-oriented housing and human settlement in space, which have different activities. This has been the central role of the research into the relationship between the local community, global impacts, consumption and tourism, which is directly related to the heritage of the space and human settlement in rural countryside, in particular in the areas which are not easily accessible. Modern guidelines to a sustainability-oriented relationship towards environment are denied by mass tourism (shopping centers, sports centers, tourist agglomerates, etc.) and, consequently, uncontrolled use of space. The characteristics of the Alpine Space provide a multitude of offers: untouched nature, the abundance of natural beauty, preserved and abandoned elements of traditionally built architectural heritage, culinary delights, cultural events and similar. At the same time it unites all the elements which follow the growing diversity of sustainable offer.

Summary

"The sustainability does not define the final situation (the state of being developed) but only the circumstances to be taken into consideration in making development-related decisions ..."[Strategy of Spatial Development of Slovenia – SPRS, 2004: 8]. This thought is also the main guiding principle of the article which represents the idea of intertwining of various existing accommodation entities within the space that originate in the past and stand for an apparent novelty in modern times.

The needs and wishes of visitors and common users of wider space are unpredictably changing, guest's demands are growing, they are seeking diversity, undiscovered features etc. That is why the offer of activities to meet these demands must constantly adapt, change and take on new forms of spending leisure time. In the spirit of globalisation and glocalization a desire and demand has developed for untouched nature, cultural, historical and archaeological sites, first-hand experiences of practices and traditions of local communities, recreation and healthy living, etc.

The new spatial organization in contrast to the hierarchically closed spatial order of towns and villages is not a chaotic disorder. It is a new, complex, spatially and temporally open system where the historical sediment does not exclude introduction of new shapes. The consequence of spreading the awareness on preservation and protection of natural environment, increase of cultural sensitivity, is that settlement development in space and the expansion of settlements involves a growing attention paid to the introduction of sustainable principles.

Tourism has many other impacts on economic and social development of individual areas, which is the result of tourist consumption. New forms of leisure activities have been implemented such as alternative, green, rural tourism etc. More and more the concept of sustainable, more ethical and responsible spatial interventions is prevailing, which does not only include the issues of preserving the environment but cultural, economic and political ones as well.

The key issues in studying the development of settlement in the Slovenian Alps are as follows: How to enable – within an alpine landscape – the coexistence of traditional settlement patterns in untouched protected landscape?

How to ensure the coexistence of the traditional rural architecture and modern architecture intended for a larger number of visitors? And how can the elements be connected in the "story about attractiveness", which will serve as a foundation for preservation of traditional settlement patterns and allow the development of new forms of settlement?

In studying rural space and planning new activities affecting the environment for the purposes of sustainable development of settlement the following questions are raised: Which locations at the local level are the most important for settlement? How does the settlement process react to social change and to what degree do the sustainable principles influence the development of activities? Various forms of rural traditional settlement in the area of the Slovenian Alps represent a system which avails all the potentials for a balanced spatial development with the introduction of modern forms of sustainable activities.

The paper aims to show the idea of intertwining of various existing accommodation entities within space that originated in the past and stand for an apparent novelty in modern times. The traditional organization of settlement structure in rural space is being abandoned and adapted to a new way of living, different settlement patterns, social and demographic shift etc. In the area of the Alpine Space, the diversity of dispersed settlement patterns is important for further development of sustainability-oriented housing and human settlement while offering different and diverse leisure activities. We need to offer new forms of spending leisure time and adapt to the constantly changing demands.

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