General notes on the concept of landscape

Landscape is part of the first general impression of certain area. The function, use and possible transformation of a particular landscape are derived, basing on the way in which they are perceived. Therefore, landscape, as the first and last imprint of a region, requires recognition, utilisation, transformation, and adequate modernisation.

Today landscape is generally seen as a natural structure and system of the physical elements and features of a region, unified with the effects that they cause. Thus, landscapes are first and foremost determined by the basic elements of the physical environment; however, their transformation is greatly affected by human presence and activities, resulting in a constant dynamism in connection to contemporary social relations and processes. Such changes are the cause of the domination of cultural over natural landscapes, part of which do not possess the normal physical conditions for the realisation of modern life-styles and have lost their functionality. They are endangered as a consequence of contemporary technical and technological achievements. Hence, less and less landscapes retain their natural form, as human activities expand even in protected areas, e.g. national parks and monuments and other regions of natural value and heritage. In these territories, man changes the physical elements of landscape and transforms its primary use, thus conditioning the conversion of natural into cultural landscapes. Consequently, some natural landscapes either disappear or gradually fade into the greyness of contemporary landscapes.

In order to recognise these processes, landscapes must be analysed and researched. This is the only way in which they can be modernised and used efficiently. Therefore, it is necessary to apply an adequate and modern valorisation method.

The method of systematic valorisation

Landscapes can be valorised in many ways. One of them is the method of systematic valorisation of natural factors and conditions, which quantifies these two elements,
providing precise, objective and commensurable results. Thus, it stresses the full natural potential of a certain area, indicating the optimal directions of development. The application of this method allows a determination of the boundaries of the most adequate land use for a certain territory, opening the possibility of choice between several alternatives for spatial development, as well as simulation of various models for the future spatial organisation. In summary, the method gives an opportunity to review, verify and re-evaluate the role of different landuses, thereby influencing the function, features, preservation and development of landscape.

**Analysis of the fundamental physical elements of landscapes in the Republic of Macedonia**

The Republic of Macedonia, which encompasses an area of 25,713 km², currently disposes of numerous diverse and attractive landscapes, not only of local, but also of national and international significance. This is due primarily to the country geographic location, varied topography, specific climatic and hydrological conditions, the vegetation cover, land-use and spatial organisation. Macedonia is predominantly
a mountainous country, as 79% of the territory consists of mountains and hills, whereas low-lying basins and plains cover only 19%. The former conclusion is confirmed by hypsometric indicators, as the surfaces below 600 metres above sea level comprise 25.4%, the areas between 600 and 1000 metres encompass approximately 44%, whereas the region above 1000 metres represents 30.6% of the total territory of the Republic. The Macedonian topography is characterised by powerful vertical dissection: the lowest area is located at 44 metres a.s.l., at the point where the Vardar river exits the space of the country, while the highest point is 2764 m. (the tallest peak of Mount Korab). Voluminous mountain masses, interrupted by deep basins, dominate the whole territory of the country.

Republic of Macedonia

In general, the relief of the Republic of Macedonia is quite complex, as it consists of a number of morphological and tectonic units containing different elements, created by different processes in different stages of development.

The eastern part of the country is encompassed by the Serbo-Macedonian mass (the Rhodope massif), a region of geologically old mountains split by numerous tectonic basins and valleys. Consequent erosional action has significantly lowered and modified the original mountainous masses, whose ranges do not have a specific spatial direction, as they consist of wide flat summits, dominated by rounded peaks.

A 70-kilometre-wide Vardar zone can be found in central regions of the Republic. This is the region through which the Vardar river has cut its composite valley, with interchanging canyons and basins.

To the West extend the Pelagonian horst-anticlinorium and the West-Macedonian mass, areas of young mountainous ranges of considerable altitude, with steep slopes and high peaks. In general, these mountains have an alpine appearance.

In terms of hydrographic features, the Republic of Macedonia possesses relatively satisfactory water resources (lakes, rivers and springs) but they are disparately distributed over time and space. Some parts of the country are notably water-rich, while others are classified among the most water-deficient areas of the Balkans.

The flora and vegetation are also extremely diverse, of profound vertical variation and great biological diversity. Forests and forest land occupy about half of the total territory, but parts of it are represented by degraded and devastated scrubland, while others are affected by severe topsoil erosion.

Natural and cultural landscapes

The physical features of the Republic of Macedonia, particularly its geographic location, richness and domination of orographic forms, multitude and abundance of hydrographic elements, varied vegetation, etc. have resulted in the emergence of numerous highly specific, diverse and extremely scenic landscapes. Many of them bear the imprint of human activities, representing geographic synthesis in the true sense.
The most interesting natural landscapes are the mountain, forest and valley landscapes, while the some of the most important cultural landscape types fall under the categories of agricultural, industrial, urban and degraded landscapes.

The mountainous landscapes are considerably varied, attractive and very specific, because every mountain in the country is a separate micro-regional unit, and therefore has its own unique landscapes. The most important physical elements of the montane landscapes are the spatial disposition, morphological structure, lofty peaks (of which some provide attractive scenic views of the surrounding area), developed network of water flows and gullies, and the vertical distribution of flora and fauna. These features ameliorate the composition, scenery and diversity of mountainous landscapes, contributing to their immense richness and value. Thus, most of these landscapes are of international, as well as local and national significance.

The lowland landscapes, which can be found in the basins and valleys, have their own specific characteristics: they are well organised, extensive and covered by particular vegetation types. These landscapes are generally associated with agri-cultural areas, giving off an impression of openness, rhythm and scenery in the colors of the various seasons. Hence, they are among the most picturesque regions of the Republic,
Mt. Kabash (2391 m) rises above the abysses of the river Dlaboka. The source of the stream (marked by a glacial lake) is visible in foreground. It confirms that mountainous areas are real richness of attractive landscapes. There are composed generally of natural-geographic elements: orography, geomorphologic landforms, dominant pick and vegetational composition with abundance of floristical elements. They make space to be interesting, exciting and nonchanging landscape mosaic (the picture is from Stefan Buzarovski and Blagoj Drnkov: Mavrovo, National Park 1998).
especially during certain times of the year. However, they also possess another
distinctive element: the replacement of the original landscape by the domination of new
elements, resulting from the intensification of agricultural production, construction and
use of big hydro-melioration systems etc. These changes offer new possibilities to use
the natural potentials, creating new values and completely different landscapes, with a
higher degree of functionality.

Another category of attractive landscapes is represented by waterscapes (lakes, rivers, marshlands). These hydrological objects, e.g. lakes, enrich the scenery, giving special characteristics to the natural landscape: they represent a contact point of two mutually contrasting elements (land and water) and a concentration of valuable natural heritage in a very small space. Such areas are very scenic and attractive, and consequently they have been relatively well valorised. They are already abundantly inhabited rich or, economic activities, tourist facilities, infrastructure etc. These elements have caused intensive processes of urbanisation and accelerated development
of tourism, but also cumulative effects and consequences have been felt: a complete transformation of the land-use, accompanied by a degradation of the quality of the environment (an ecological imbalance), changes in the general spatial organisation etc. Yet, some of the alterations have given a new quality to the landscape, bringing it an international significance.

Industrial landscapes are special type of newly-created landscapes in Macedonia. Appearing in the regions where industrial objects and complexes are located, they represent new phenomena with special features.

Urban landscapes also fall within the category of anthropogenic, cultural landscapes. They are a result of human activities in the population centres, where a special urban physiognomy and distribution of verdure has been created. Macedonia possesses a long tradition of urban development, as the old cores of its towns are distinguished by a refined sense of texture and form.

Thus, these landscapes are very interesting and unique in terms of their originality and authenticity. However, modern civilisation has introduced new patterns of spatial composition, which have brought new elements and features to the urban
Veles. Historical conditions are important factor for location of urban settlements. It was build with respect of surface topography, dense but precise in such a way that are getting off all needs of individuals as well as community in that time.

settlements, such as parks, quays, green spaces etc.

Another distinctive feature of urban landscapes is the combination of old and new architecture in most of the city cores.

Skopje. For urban picture to correspond with development of community it's in permanent reconstruction and transformation. Old urban structure is changing and new is forming, being esthetically more sophisticated, with high functionality and economically. Here the humanity is at higher level than in the past.
Degraded landscapes

Modified and degraded landscapes are ever more present in the Republic of Macedonia. The changes in them are caused by human activities, most pronounced in the populated areas, coastal zone, mountainous and hilly regions, mines, around unregulated water flows etc. These processes have resulted in the transformation and (often) complete annihilation of certain natural landscapes, which have been degraded because of their contents chang. The forest cover has been destroyed, erosion has been intensified, agricultural areas abandoned, illegal construction is present, the quality of air, water and soil has deteriorated, economic pressure for agricultural expansion in different areas is mounting, artificial waterways are being built etc. Thus, many of the natural landscapes are seriously threatened, and some have been destroyed, as the increased interest for diversified land-use has implied a growth of the need of spaces for different activities (housing, industry, traffic etc.). In turn, this increased requirements for water, recreation, mineral exploitation, while erosion has been intensified and inadequate land-use expanded. Consequently, the different demographic, economic and tourist processes have instigated a series of degradation phenomena in the natural, unique landscapes. Unfortunately, all of this is a product of the ignorance, negligence or
Landscape reconstruction

We have tried to outline the features of some uncalculated and short-sighted landuse methods, which have contributed to the destruction of the natural equilibrium in certain areas. Some of these changes pertain to the creation of so-called „cultural steppes” or „farmed steppes” in which the landscape is characterised by great expanses of cropland and pastures without any regard to topography, without trees, wild vegetation or windbreaks (or any other protection from natural hazards), and decreasing soil productivity. Some measures have been taken in reaction to this destruction of the original beauty of natural landscapes, but their scope and results are very limited.

Landscapes and spatial planning

There is already a lot of knowledge of the aforementioned processes today; therefore spatial planners must tend towards the correction and improvement of habitability in populated areas and a social reconstruction of space, based on modern economic and technical principles and maximum respect of the need to preserve natural landscapes. In that sense, planners are faced with the task of creating new cultural landscape. The plans must be directed towards comprehensive solutions, by determining the optimal areas for urban development, industry, landscape reserves, stable water supply etc. The regional scheme must foresee an integration and interdependence of these areas, as habitability cannot be developed with one-sided and specific solutions. Hence, spatial planners should be able to rise the values of space to a much higher level, by reconstructing the civilised landscape. According to a number of theoreticians, the term
“landscape reconstruction” corresponds to the term „land-use” in planning.

Conclusion

The rapid by increasing interest in space has resulted in the serious endangerment of certain landscapes, while others have gradually faded into the greyness of contemporary landscapes. Regardless of that, natural landscapes should continue to be preserved in their original form, and some of them must be reconstructed by aorestation, water flow regulation, melioration of the grassland communities, biodiversity improvement, prevention of illegal construction, controlled construction of landfills and mines etc. These measures will enrich their content, change their structure and establish new, more stable ecological relations. The visual effect should also get adequate treatment.

The conservation, protection and development of landscapes, as well as the creation of possibilities for modern and functional management, can and should
be realised through the space planning, use and organisation. They will provide the possibility to adequately include natural landscapes in the whole development process, while activating and reconstructing degraded regions. This pertains even to some of the most sterile and degraded areas.

Physical geography has a special and multifaceted role in spatial planning, especially regarding:

• an analysis of landscape;
• an analysis of the importance of its elements;
• provision of recommendations for its active protection.

However, it is difficult to separate physical geography research from the general geographic complex, as landscape itself is a very complex system undergoing intensive spatial transformation. In it, human activities often get out of hand and disrupt the natural harmony of space, especially during the construction of settlements, different types of commercial objects, traffic infrastructure etc. All of this spoils and degrades the natural beauty of landscapes and fractures the organisation of space. That is why geography can provide answers to such questions only as an integrated discipline.

Spatial planning today has a new, redefined view concerning the evaluation of two basic factors: space and time. In the spatial dimensions, planners tend towards the reconstruction, in any regional community, of the physical, economic, social and cultural relations of that community towards the natural element. The examination of all these factors should lead to the definition of a sustainable, balanced relation between man and nature. This means that humans try to optimise the use of their capacities and natural resources in space, including the temporal dimension and implying that civilised man must develop a new cultural landscape which will not only provide greater economic benefit, but also a stable existence of human society and its values. To achieve this, planners must equalise three contradictory demands: conservation of natural resources, control of the flow of goods and regional development.

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