5th INTERNATIONAL ACADEMIC CONFERENCE ON PLACES AND TECHNOLOGIES

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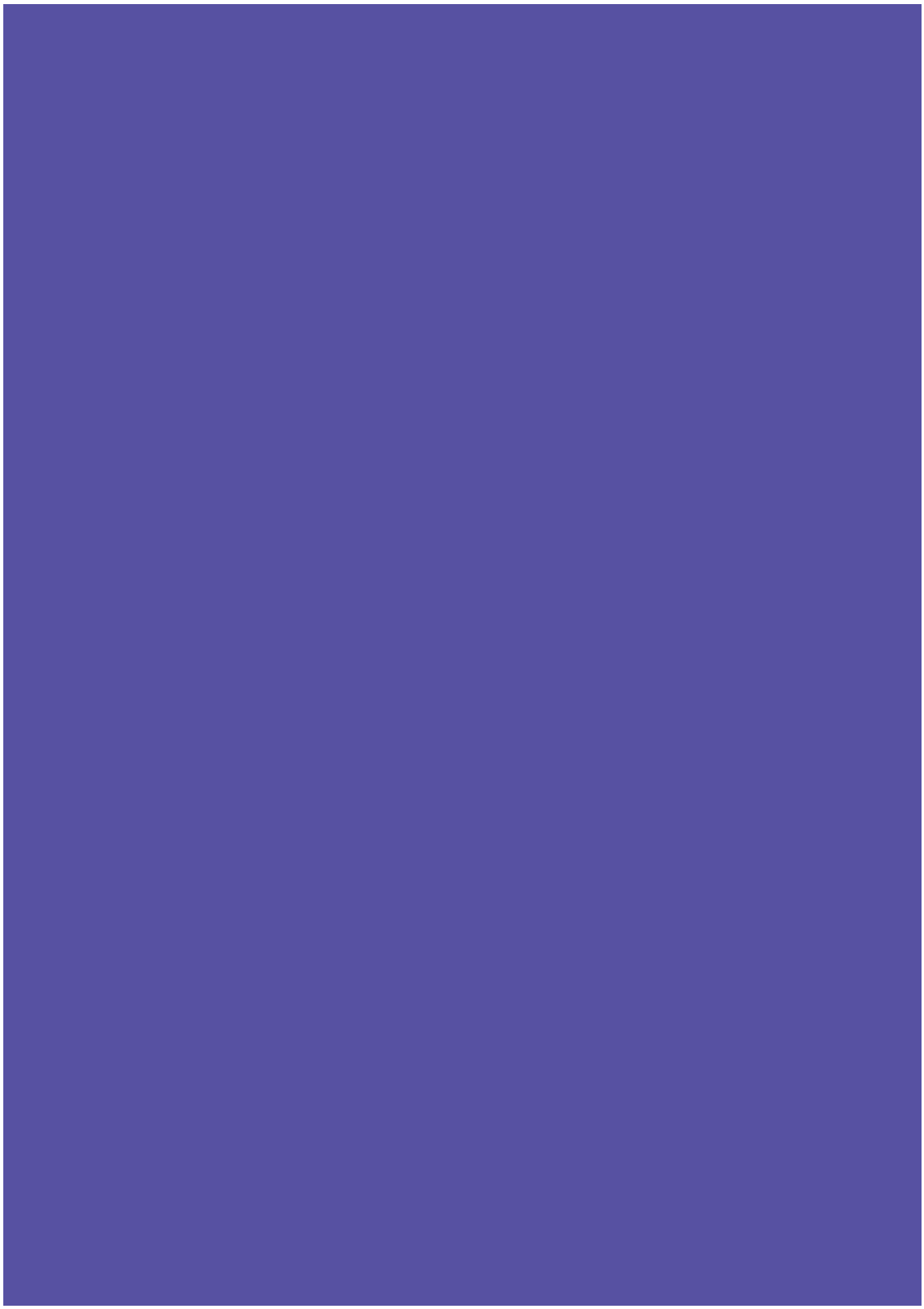
AND ALEKSANDRA ĐUKIĆ



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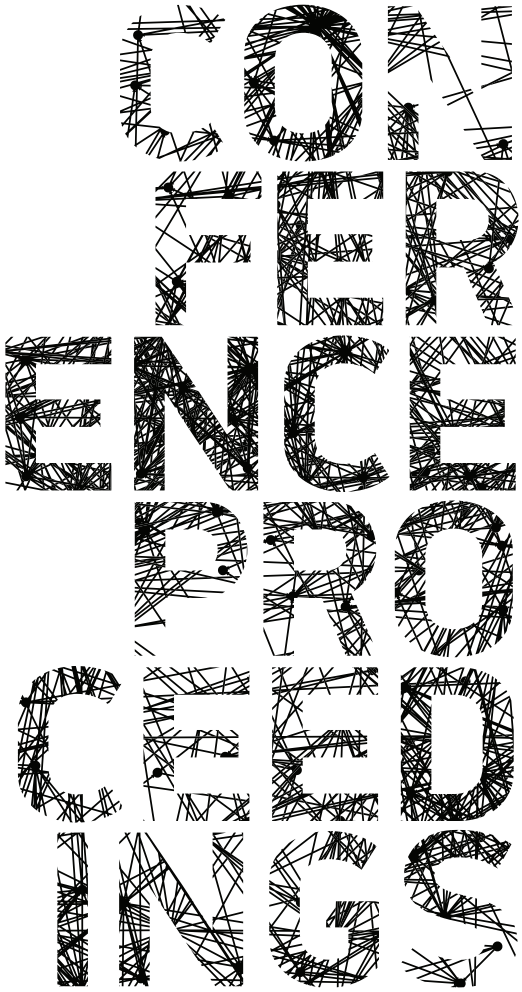

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PLACES AND TECHNOLOGIES 2018

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MULTIFUNCTIONAL FACILITIES – FROM PRIMARY FUNCTIONS TO SPATIAL LANDMARKS (STUDY OF TWO CASES IN SERBIA AND BOSNIA AND HERZEGOVINA)

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ABSTRACT

Through case studies, this paper presents a comparative overview of the implementation of two similar individual investments in Serbia and BiH - from initial ideas, through programming, urban and architectural design, to preparation and construction of specific facilities at specific locations. A comparative overview of specific activities indicates the options for improvement of overall process efficiency through transfer of best practice examples from one country or another, i.e. through delivery of specific conclusion which can improve similar endeavours. More precisely, we focus on secondary educational facilities, scientific and teaching bases or field laboratories which in both cases represent branches- field offices or stations for practical training provided by Faculties of Forestry in both countries. Apart from the academic educational activities, these spaces are also intended to provide accommodation and potential tourist-oriented facilities for a wider circle of users. From the aspect of programming, these investments required designing of multifunctional spaces which were supposed to provide not only practical training and accommodation for students, but also accommodation and animation services for tourists in the mountainous tourist regions in which they are located. This paper also reviews the issue of rehabilitation, reconstruction, adaptation and expansion of already existing facilities, as well as the design and implementation of completely new functions.

From the aspect of location, we consider the issues of adaptable designing of open and closed spaces at higher altitudes (1,000 meters above the sea level) in mountainous regions with thick forests and severe winter weather conditions. These stations are primarily intended for the required/mandatory activities, or their specific basic purpose, but they can also be especially functional from the aspect of tourist network elements development in a specific wider area, and as marketing and promotional markers for popularization and attractiveness, i.e. “new recognisability”of specific sites in a more narrow spatial sense. As modern landmarks, they could use their functionality and symbolism of their form to generate considerable development and increase the number of visits to rural areas, where the sites which interest the wider circle of users are usually located.

Keywords: Education, multifunctionality, mountain tourism, forest regions, landmarks in environment.

Introduction

The majority of Balkan Peninsula is covered by hills and mountains and the territories of Serbia and Bosnia and Herzegovina are no exception. Over 2/3 of Serbia’s terrain are located at higher altitudes, and in Bosnia and Herzegovina such areas are even more predominant. The logical further social and spatial development of these territories indicates the need for reaffir-

1 Corresponding author

mation and use of those resources that they objectively have at their disposal. Due to synergy of general historical, social, sociological, ethnological and other factors, as well as specific territorial and mostly peripheral traffic conditions, it is precisely the mountainous regions that have been neglected from the aspect of development in the past, or they have at best stagnated. Due to their developmental advantages, which arose consequentially, spontaneously or intentionally, they should be the focus of social interest, and to a greater degree than in the past (Ploeg and Renting, 2000).

Among other specific characteristics, the developmental potential of rural spaces are reflected in unquestionable opportunities for tourism development (Hall and Richards, 2002). In the current circumstances of untapped potential of mountainous areas, we have the fortune that those characteristics and requirements for tourism development which have been popular, appreciated and in demand during the last couple of decades have been preserved in precisely these areas. These are a part of the modern view of this branch of economy, which focuses on attractiveness of regions, abundance of natural and manmade values, specificity of certain regions, level of preservation of natural environment and potential for environmental approach to development (Garrod *et al*. 2004). Apart from all of the aforementioned, we should also take into consideration the constantly present physical structures dating from different periods, their service properties and the options for additional use. Objective social and economic circumstances of social climate in Balkan regions cannot afford to ignore what they have at their disposal and neglect the previously invested developmental efforts.Rationality and adaptability in treatment and use of already existing facilities, but also the creation of potential for multifunctional and universal use during planning and design of new investments are becoming the prerequisite for infrastructure construction policy, offer design, and character and brand creation in the tourist development of mountainous regions. This paper, based on the comparison of specific traits of proposed models – two case studies – aims to shed a light on specific aspects of such processes from the viewpoint of their reality and experience.

Two projects – sites in their contexts – basic coordinates

The first analysed project (the existing - adapted, reconstructed and expanded buildings), or Case 1, is located at Gvozdac on Serbian Goc Mountain, in the territory of the Municipality of Vrnjacka Banja. The teaching base camp of the Belgrade Faculty of Forestry (“Pyramid” hotel) is located at the altitude of 900 meters. It is intended for practical training of students in an exceptional natural environment – a forested area, appropriate for the intended empirical and education purposes, as well as vacation and rest in nature. The buildings were constructed in different time periods (immediately after Second World War, in the case of student accommodation and the mountain lodge, and a little later in the case of the newer part of the pyramidal reception desk and the annex for accommodation of professors and guests). Apart from the mentioned facilities, the complex also includes two older accommodation facilities-lodges located near the relevant site, and the complex comprising of a farm, saw mill and a heating plant in the wider area, as well as several additional buildings located around a small lake with elements of outdoors furniture (canopy, bridges over the rivers and streams, desks and benches, hard landscaping – all made from forest timber), and a construction intended for an oven in the vicinity of the lake.

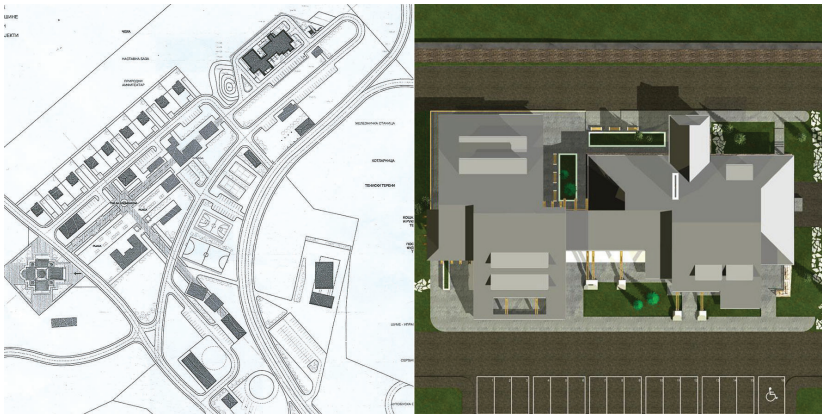

Figure 1: Banjaluka Faculty of Forestry teaching base in Potoci - EastDrvar -BiH. On the left: Settlement centre urban plan. On the right: Composition plan. (Design: 2014. Authors: A. Videnovic, D. Radonjic, architects)

The second project, Case 2, is planned in BiH in the Republika Srpska entity, more precisely East Drvar municipality which was created from small villages Potoci, Uvala and Smetica. The centre of this municipality is Potoci village at Klekovaca Mountain, located at the altitude of more than 1000 meters and numbering only 66 inhabitants according to the 2013 census (the 1991 census recorded 27 inhabitants). (Figure 1) Such an example of transforming small settlements into administrative centres (where in the case of Potoci it was founded in early XX century as a workers and railway settlement with 600 inhabitants and started dying out with the elimination of narrow gauge railways in 1967) is the usual practice with previously large cities where the majority of urban settlements now belongs to BiH, and only a few smaller ones to Republika Srpska. At entity border areas, municipalities were formed out of settlements which do not possess the appropriate characteristics required for their role of centres. This is precisely why there is a desire in this Case to provide additional facilities (apart from the existing Post office building, municipal administration, medical centre East Drvar, one residential building and the central office of one of the organizational units of Republika Srpska Forests – forest estate "Klekovaca – Potoci") in order to define and empower the municipal centre. Thus, the design and construction of a teaching base of Banjaluka Faculty of Forestry (modelled on the base on Goc Mountain in Serbia, i.e. Case 1) was initiated here, with the aim of developing an outpost in this forested region, which also holds a protected nature reserve – a 300 ha large Lom virgin forest (Google, 2018).

Relations: Case 1 is a typical socialist relict, originating from "enthusiastic" 1950s and riding on the wave of university teaching development, when the forest wealth was made available to the government and the "new" society, and thus to "Workers'" University due to the shift to social property structure. The teaching base and forest estate facilities, intended for student training and accommodation, were later used for commercial and tourism purposes in the wider sense, owing to relaxation of authority and competences. In the situation where such privilege is innovated and prepared for successful business operations in the circumstances of transitional market, this approach can become a role model for design of Case 2 investments in BiH due to its specific combination of educational and purely commercial activities. Along with forest wealth and further development of university level forestry education in Banjaluka, the teaching

base in Potoci-East Drvar could be important not only from the commercial aspect, but also as a factor of village urbanization and elevation of its significance as the new municipal centre.

Comparison 1 – Position, context, traffic communications and relations

The site of Goc Teaching base is, as usual in mountainous areas, not easily accessible. The main connection with bigger roads in Serbia is by an over 20 km long side road which diverges from Kraljevo-Krusevac main road. The same road continues towards Aleksandrovac and Brus, and it has a problematic, 9 kilometres long poor quality section. Another, even worse road connects the site with Vrnjacka Banja, in whose administrative territory it is actually located. There are no other facilities in the immediate vicinity of the Teaching base. Several hundred meters further we can find the planned tourist centre of Goc Mountain with several accommodation buildings, a hotel and a children resort. Two ski tracks are located next to these facilities. The entire complex is rarely visited by tourists and recognized only in the local community of Kraljevo. While the site in Case 1, although rarely used, is still accessible,Potoci settlement in BiH (Case 2) is almost totally inaccessible. The settlement can be reached only by local, non-paved forest roads, intended for forest exploitation purposes and appropriate for off-road vehicles. There is a lack of communications with its immediate surroundings and wider environment.

Relations: In both cases, the basic quality of the relevant location can be found precisely in its exceptional natural environment and high level of nature preservation, which provide the best foundations for development of any form of tourism. In spite of the position of these rural centres and even the context of remoteness and non-urbanized surroundings, the efforts aimed at their rehabilitation demand a considerable improvement of road infrastructure, as well as planning of additional facilities in Case 2 (Videnovic, 2017).

While Case 1 represents an autonomous complex of self-sufficient facilities, comprised of an accommodation base, teaching station, a hotel located in natural surroundings and additional facilities in relative vicinity, the design in Case 2 aims to provide immediate contact with the nearby forest, but also to help the formation of Potoci street plan, i.e. to contribute to the design of the rural region centre in order to provide the same centre with characteristics of a planned, designed and functional space.

In this sense, the project of the Potoci Teaching base/ tourist accommodation facility, which is awaiting implementation, was accompanied by the Urban Planning Project for regulation of settlement centre in line with the fact that this centre was awarded an important regional administrative function.

Comparison 2 – Functional and organizational concepts and facilities

As far as the preservation level of Goc old teaching base is concerned, the reception desk, hallway and gallery in the pyramidal object, the nearby guest accommodation building and the annex connecting them, i.e. the hall leading to student accommodation building, are still standing. All other facilities were removed for being either derelict or inappropriate. Even though these buildings (except some less valuable forms and facilities) are representatives of autochthonous, mountain architecture with elements of vernacularism, the student accommodation buildings – old villas – and dining halls with massive stone fire places were simply removed. (Figure 2) Without any sentimentality or rational reasons for keeping them, these building were replaced by new ones with the same function, but modern design and equipment needed so they could satisfy the requested program in the best way possible.

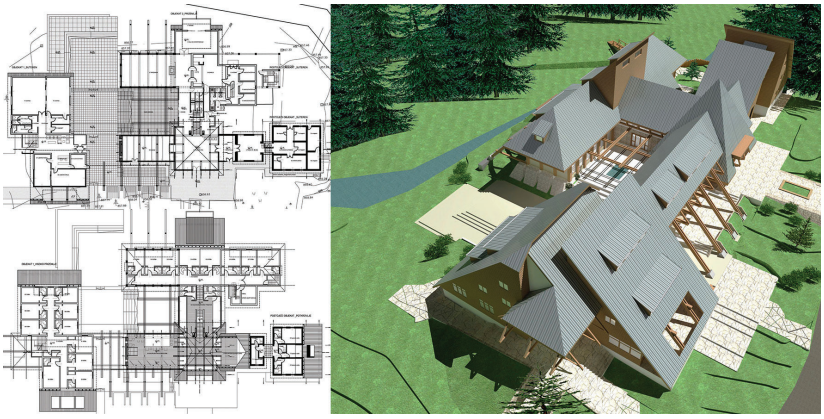

Figure 2: Belgrade faculty of Forestry teaching baseat location (Gvozdac – Goc – Serbia)On the left: Ground floor and first floor layout. On the right: Model of the complex. (Design: 2013. Authors: A. Videnovic, D. Radonjic, D. Danilovic, architects)

Our Case 2, Potoci facility (BiH), although inspired by Goc project, has followed programming requirements of a completely new complex with a more modest programme, so it could be aligned with the regulatory plan of the growing settlement and, although formed in the character of urban freestanding buildings, could contribute to the origins of urban development in the current ambient circumstances. Thus the design has adopted a line concept, with a clearly differentiated public and accommodation facilities, and the central reception desk with a hallway connecting them. Cut into unlevelled terrain next to a forest complex, the building can be accessed from several sides and since it doesn't have to be permanently linked to the surrounding landscape (as the facility in Case 1 does), it is conceptually focused on internal facilities and their as rational as possible relationship, with the possibility for multifunctional use of specific facilities.

Relations: Although quite similar from the aspect of purpose and concept, the projects (buildings) on Goc and in Potoci are still considerably different in their approach to investments and with regards to users' expectations. While in Case 1 the focus is on innovation, updating, improvement of teaching and other tourist activities, in Potoci we can see the very origin of specific facilities and functions, i.e. the intention to resolve many burning issues and needs of that settlement with one stroke. Hence, in Case 2 it was necessary to consider the needs of the investors related to the Banjaluka Faculty of Forestry teaching base, the need for accommodation of guests, the organization of specific forms of tourism, introduction of additional activities to the basic economic activity in the community – maintenance and exploitation of forests, but also the improvement of central settlement functions from the aspect of facilities and regulatory planning.

Comparison 3 – Materialization and form in different circumstances and in relation to different priorities

The architects in Case 1 used the opportunity to design the elements of roof construction in the form of prolonged struts which create the impression that the buildings are adhering to the ground, i.e. growing out of that ground. Due to different circumstances, as it often happens

during the construction phase, this idea was not realized. This has considerably reduced the aesthetics of the buildings and created an impression of ordinary and relatively average architecture.

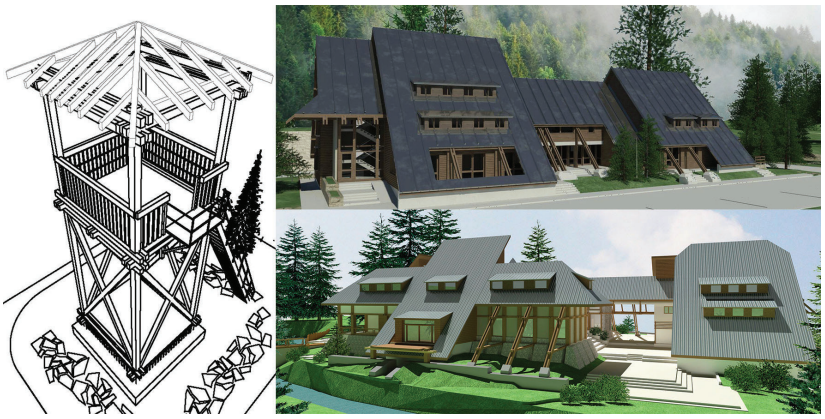

Figure 3: On the left: Elements designed in wood–dominantly present material (lookout tower and a platform for safer stay in the forest). On the right: Teaching base in Potoci – a compact line design facing the street (up), and on Goc Mountain– a less compact, more freely designed concept with a better contact with its surroundings (below)

In the Potoci project (Case 2) such elements weren't even attempted, due to limited space available for construction of facilities. Also, the need for rationality has overshadowed the desire for diverse forms, so this project can also be placed in the category of creations void of any explicit aspirations from the aspect of form.

However, all of the aforementioned does not mean that these are not concrete projects which do not possess high quality elements of transposed vernacularism and regional characteristics, i.e. that they are not or will not be interesting from the aspect of their architectural form.

Relations: We can definitely say that the designing of any facilities in the both cases analysed here would be at least inappropriate if timber, predominant in these forest environments, was not used as main or at least important material in construction. But, on the other hand, any excess in this sense would lead to lack of measure in the use of shaping elements.

In both cases pitched roofs were used as the usual design in mountainous regions with abundance of snow. In Case 1, the challenge laid in integration of new and existing facilities. A vertical element in the form of wooden lookout tower was used in Case 2 as an attempt to establish specific visual identity and a symbol for the building and related facilities, but also as a symbol for forest related activities, hunting and the need to move away from the ground which is not always safe or comfortable. (Figure 3)

Conclusions

Contemporary investments require multifunctionality as the most important determining factor of the space that is being designed. The speed of changes in the modern society, behaviours, priorities, values. customs, habits and trends, requires the option of adapting every space, especially those which are not standard, mass produced and easily exchangeable, to the needs

of real time events in a painless, rational and efficient manner. In this sense no design can be approached unilaterally without any options for combinations of functional elements, changes in purpose of space, or adaptability and adjustability to newly arisen circumstances. If intelligence is defined as the ability to navigate new circumstances, the same concept can be applied to architectural design. In other words, the designed space is of good quality if it can be relatively easily adapted to different types of activities. The both of these reviewed and compared cases had to contain educational, accommodation and leisure facilities intended for students as well as a wider circle of users. In case 1, the design and the building possess a sound link with the environment in the form of several interspaces intended for external use. In the Case 2, there are no such spaces since the terrain and urban regulation plan did not allow for it, which, again, does not mean that they cannot be realized after the construction through further design of surrounding space. The quality of both designs lies in the possibility of continuous multifunctional use, regardless of the rhythm of specific education or climate calendars.

The role of new designs and buildings as potential landmarks in the wider regions or areas in which they are designed and constructed also plays an important, strategic role in the fields of architecture, construction, but also environment aesthetics, organization of tourist events, and finally the creation of distinct brands for specific areas(Videnovic and Arandjelovic, 2016:194). It does matter how an architectural work will look like and whether it will attract the visitors to stay in it or visit it when passing through the region. Entire new strategies of tourism, and not only tourism, are based on the phenomenon of attractiveness, i.e. exclusivity and importance of the seen and the experienced.In that sense, both of these analysed cases can represent “true” architecture in the relevant locations from at least two aspects, the aspect of location and the aspect of an aesthetic and functional symbol. (Fig. 4)

Figure 4: One of the new, expanded buildings in the Goc teaching base (Serbia). Designed in 2013, constructed in 2015. Authors: A. Videnovic, D. Radonjic, D. Danilovic, architects. (Photo: A. Videnovic)

If we focus on the aspect of location, Case 1 (the complex on Goc Mountain) represents an improvement of an already established and well founded facility intended primarily for faculty students with the option of accepting a wider circle of interested persons. So it is possible for this facility, together with other old villas in the complex, to represent one of the stops on the dynamic road of regional tourism development. Outside of the usual standards of stationary tourism based on a long stay at a single location, there is a contemporary form of dynamic vacation, where tourists spend every night at a different location and go to day-long tours, or spend several nights at the same location taking field trips to closer or more distant destinations. From the aspect of location, Potoci project, or Case 2, should represent a modern regional element of newly formed administrative centre urbanization. From the aspect of university

education, it would signify a new era of higher quality content and teaching. The effect of such a facility's offer in such an unexpected location could result in a modernization of the attitude towards the economic activity in the area, where it would no longer focus only on the sphere of forestry and administration but instead on development of tourism that can be expected in such a natural environment.

Having in mind the aesthetic and functional aspect of these two analysed cases, the appropriate suggested materialization, application of forms transposed from the traditional forms of Serbian and Bosnian mountainous region architecture, then the respect of the rules of appropriate and logical spatial relations, as well as maximum flexibility regarding the potential for use of suggested elements and programmes during the design process indicate that currently, after the construction of one of the projects and prior to the construction of the other, we can certainly expect results deserving of the concepts and good intentions of their investors and authors.

Whether we are discussing the reconstruction and expansion of buildings, as in Case 1, or the construction of completely new facilities as in Case 2, these are positive trends in the shaping and planning of rural spaces and ambient habitats i.e. in the behaviour in spaces characterized by their natural surroundings. It is extremely important to apply a careful approach to the design of public spaces in rural communities, especially having in mind that in the future it will become even more relevant and frequent. In the circumstances of less attractive surroundings and specific spatial situations, it is necessary to create a space free from the impact of fashionable, transitory and exclusively commercial trends.

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