Series: Architecture and Civil Engineering Vol. 2, No 5, 2003, pp. 373 - 378

THE CRITERIA FOR THE EVALUATION OF THE EXISTING SCHOOLS IN THE RURAL AREA IN THE CITY OF NIS TERRITORY

UDC 727.1(1-22)(497.11)(045)=20

Danica Stanković, Ivana Bogdanović, Milan Tanić

The Faculty of Civil Engineering and Architecture of Niš 14 Aleksandra Medvedeva street, 18000 Niš, Serbian and Montenegro

Abstract. After the announced first phase of the recorded material collecting and the information on the existing schools in the rural areas in the administrative are of the City of Niš, the data base on the schools in 68 villages was created.

In this paper, the possible systematization models for the existing schools have been presented, and the criteria for the analysis and its evaluation in respect to the determined set of parameters have been defined. The conducted classifications make further research possible and gives the guidelines for the concrete action in the revitalization of the eduction and the village development.

1. Introduction

The village area in the adiminstrative territory of the City of Niš has the properties characterizing the great part of the rural areas in Serbia. It is heterogeneous in composition and it comprises some of the most developed and most underdeveloped village areas.

The degree of economic development and the population status used as the evaluation parameters, clearly indicate the tendency of rapid urbanization in the certain villages, where the process of the village developent into an urban environment is relatively certain. However, evidently, there are also the most underdeveloped rural areas whose backwardness and degradation are of such an extent, that the decrease of the population growth and the migrations, bring about the abandonment of the villages, their decay and vanishing.

The hard living and working conditions in the villages are the consequence of the inappropriate infrastructural equipment, unorganized life and material insecurity. Those are the most common reasons for stagnation and regression in the village population life.

This lack of elementary communal infrastructure and organization is accompanied by inappropriate supply of the social standard facilities and substance. As an aspect of in-

Received August 15, 2004

telectual improvement, this field of educative and social and cultural life of a village must not be neglected. Education, cultural and entertainment activities and social engagement itself, both of the children, the youth and the rest of the population in the village, with the appropriate facilities, all represent the elements that should contribute to the more quality of the village life. Their role is to compensate for the remoteness of the city and retain the population in the village, creating in this way the conditions relatively similar to the urban ones.

2. THE EXISTING SCHOOLS IN THE RURAL SETTLEMENTS IN THE CITY OF NIS TERRITORY

In the framework of the scientific project "the directions of the sustainable development of the villages in the administrative area of the city of Niš, the separate research area is comprised in the education and the school facilities. The problem was considered comprehensively and thoroughly, and it was viewed from multiple aspects. In order to have the problem of education and the education conditions in the village environment considered in an adequate way, the research was phased.

The initial phase of the collection of data and the recorded material from the concrete location in the field, enabled the formation of the comprehensive data base on the existing facilities. The first phase of research encompassed the entire territory of the administrative area of the city of Niš. The material about the existing school facilities in 698 villages was collected, implying that it is a database formed on the basis of the complete list.

In the first and most general classification of the collected data, the preliminary sistematization of the village settlements was accomplished, in respect to issues such as:

- 1. the extent of school functioning
- 2. the usage of the capacities and the relation to the total number of population in the settlement
- 3. type of school (from 1-4 grade and from 4-8 grade),
- 4. distance of the school from the residential location
- 5. status and age of the school building in the civil engineering sense.

The classification of these data for all of the 68 village, enabled the consideration of the concrete situation in every individual village settlement in the city of Niš territory.

On its basis it is possible to state that the schools in 12 out of 68 villages are not operating, that the number of pupils in the schools ranges between 1-360, in respect to the total number of inhabitants ranging between 157 and 6000. In 5 villages, the villagers commute to the neighboring village to atten the 1-4 grade school, while the 8 year schools are present in 18 villages.

Table 1. Relationship of the min. and max. values according to the survey data on the villages in the researched area

The survey data on the schools in the researched area	min.	max.
Nubmer of non working schools	0	12
Number of pupils in the schools	1	360
Number of 8 grade schools	0	18
Distance of the schools from the residential location	1 km	9.6 km
Age of the school building	1 yr	100 yrs

The pupils that commute, travel between 1.0 to 9.6 km to schools. The school buildings are old from 1 to 100 years.

3. CRITERIA FOR VILLAGE SCHOOLS EVALUATION

The material collected in the field, with the accurate data on the school complexes and the characteristics and status of the school buildings, offer a range of analysis and systematization possibilites. The possible aspects of investigation are numerous, so firstly the methodological-strategic issues were solved, such as:

- establishment of the priorities in respect to the possible aspects of evaluation,
- defining of the relevant factors for the evaluation of the school buildings
- defining of the comparative parameters for a more accurate determination of the individual factors,
- forming of the related subunits,
- and the preliminary classification.

The priority was given to the most general architectonic-town planning and architectonic-design principles. Three basic aspects were singled out: the location conditions, functional-organizational characteristics of the school building and architectonic-civil engineering characteristics of the objects.

For each of the basic aspects of the research, the relevant factors for their more accurate determination were defined.

The location conditions are defined by the elements such as the terrain gradient, size and form of the location, possibility of organization of the school yard in accordance with the regulations, as well as by the characteristics of the school yard and the sport facilities.

The functional characteristics of the village building are determined by the following elements: typical capacity of the village school building, concept of te functional organization of the teaching and education space and structure of the school facility.

The architectonic-civil engineering characteristics of the objects may be analyzed from the apect of the architectonic expression, and the age of the structures aspect.

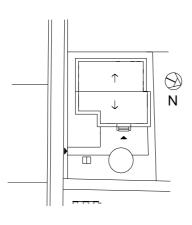


Fig. 1. School yard with no possibilities for sport facilities

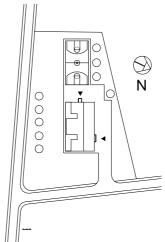


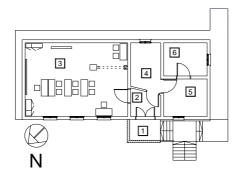
Fig. 2. Typical school yard with 1 sport facility, Trupale village

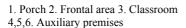
A series of appropriate parameters was determined for each of the factors, on whose basis it is possible to more accurately define the factors. The terrain gradient is evaluated on the basis of the parameters such as the flat and the inclined terrain, the characteristics of the school yard on the basis of the position, size, shape and content of the school yard and the sport facilities on the basis of the type,

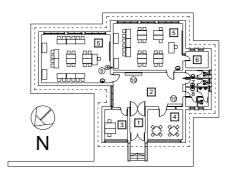
number, refinement and status of the sport facilities. The tipical capacities of the village school building are the ones with 1 classroom, 2 classrooms and multiple classrooms. The concept of the functional organization teaching-educational room may be of the linar or unispaced type. The structure of the school facility is comprised by the premises such as: classroms, offices, library, kitchenette, dining room, pre-school premises, health protection premises, gym as well as the sanitary premises within (or outside) the building, while the teacher's residence and the communal center office, as special spaces with separate entrances may exist.

The classification of the relevant data on the village school buildings and their immediate environment in the villages in the administrative territory of the City of Niš, presented in its entirety, consists of the following factors:

- 1. Location conditions
 - 1.1 Terrain gradient
 - flat terrain
 - inclined terrain
 - 1.2 Size and shape of the location
 - 1.3 Possibility of the organization according to the regulations and
 - 1.4 Characterististics of the school yard and the sport facilities
 - position, size, shape and contents of te school yard
 - type, number, refinement and status of te terrain
- 2. Functional-organizational characteristics of the school buildings
 - 2.1 Typical capacity of the village school building
 - 1 classroom
 - 2 classrooms
 - multiple classrooms
 - 2.2 The concept of the functional organization of teaching and educational rooms
 - linear type
 - hall type
 - 2.3 School facility structure
 - 2.3.1 School contents
 - classroom premises
 - -office premises
 - library premises,
 - kitchenette,
 - dining room
 - pre school premises,
 - health care premises,
 - gym and
 - sanitary premises (within or without).







- 1. Entrance 2. Hallway 3. Teachers' office
- 4. Kindergarten 5. Classroom 6. Library
- 7. Sanitary premises 8. Auxiliary premises
- 9.Stove 10. Coat hanger

Fig. 3. Plan of the school building with one classroom, Leskovik

Fig. 4. Plan of the school building with two classrooms, Donje Medjurovo village

- 3. Architectonic-civil engineering characteristics of the objects
 - 3.1 Architectonic expression
 - ambiental-historical and
 - contemporary
 - 3.2 Age of the buildings
 - Old school building
 - Renovated school buildings and
 - New school building



Fig. 5. Characteristic façade of the old type school building, 1946, Leskovik village



Fig. 6. New school building façade of 1972, Knez selo

4. CONCLUSION

The harshe living and working conditions in the village are the basic reasons for the stagnation and regression in the village population and rural area development. Among other things, they are also the consequence of the material insecurity, lack of organization and insufficient communal equipment. Due to the underdevelopment of the villages,

impoverishment of the population and the daily migrations on a regular basis, there is the tendency for village desertion. The general decrease in the birth-rate is of such an extent, that certain villages are facing extinction.

That is why, in the revitalization of the village area, the youth and their families must be one of the most important issues. Along with the creation of the optimal conditions for living and working in the village, a special attention should be paid in the social care and the education conditions of the school age children. In this context, the problem of the built school buildings is one of the primary factors determining the quality of life in the village.

By the establishment of the criteria for the evaluation of the existing school buildings, their further categorization by all the relevant parameters is ensured. The determination of the problem enables defining the adequate strategy in the process of renewal of the primary school education in the villages.

REFERENCES

- 1. Anđelković, M., Anđelković, H., Stanković, D.: ",Seoska škola u kontekstu održivog razvoja ruralne sredine", Zbornik radova sa Savetovanja "Selo u novim razvojnim uslovima", Mataruška banja, 2002.
- 2. Andjelković, M.: "Školske zgrade", Gradjevinski fakultet u Nišu, 1995.
- 3. Bajbutović, Z.: "Arhitektura školske zgrade", "Svijetlost", Sarajevo, 1983.
- Stojkov, B. i grupa autora: "Strategija razvoja i uređenja naselja u novim uslovima", Udruženje urbanista Srbije, Beograd 1998.
- Bajić-Brković, M. i grupa autora: "Proces urbanizacije", Urbanologija, sveska 3, Univerzitetu Beogradu, Arhitektonski fakultet, Beograd, 1993.
- Grupa autora "Unapređenje i razvoj stanovanja", Arhitektonika, monografija 10, urednici Prof. dr M. Ralević i Prof. dr N. Kurtović-Folić, Univerzitet u Beogradu, Arhitektonski fakultet, Beograd, 1996.
- Grupa autora "Stanovanje ka 3. milenijumu", Arhitektonika, monografija 11, urednici Prof. dr N. Kurtović-Folić i Prof. dr M.Ralević, Univerzitet u Beogradu, Arhitektonski fakultet, Beograd, 2001.
- Pravilnik o normativima školskog prostora, opreme i nastavnih sredstava za osnovnu školu, Prosvetni glasnik SR Srbije, br.4/1990.
- 9. Prostorni plan Republike Srbije, Institut za arhitekturu i urbanizam Srbije, Beograd, 1996.

Note: This paper is realized with the scientific project of the Faculty of Civil Engineering and Architecture "The directions of the sustainable village development in the administrative territory of the City of Niš" financed by the Ministry of Science, technology, and development, and the Municipality of Niš.

KRITERIJUMI ZA EVALUACIJU POSTOJEĆEG ŠKOLSKOG FONDA U RURALNIM NASELJIMA NA PODRUČJU GRADA NIŠA

Danica Stanković, Ivana Bogdanović, Milan Tanić

Nakon obavljene prve faze prikupljanja snimljenog materijala i informacija o postojećem školskom fondu u ruralnim naseljima na administratibnom području grada Niša, formirana je baza podataka o školskim zgradama u 48 sela.

U ovom radu su prikazani mogući modeli sistematizacije postojećrg školskog fonda i definisani kriterijumi za analizu i njegovo vrednovanje u odnosu na utvrđeni niz parametara. Izvršene klasifikacije omogućavaju dalja istraživanja i trasiranje smernica za konkretno delovanje i akcije u revitalizaciji obrazovanja i razvoju sela.