

SPATIAL MANAGEMENT OF TERRITORIAL ADMINISTRATIVE UNITS BY THE IMPORTANCE OF COLLABORATION BETWEEN SURVEYOR AND ARCHITECT

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Abstract: Modern city planning is described in the specialty literature as the combination of art and science, and the resulting product is for the benefit of people whatever the type of their settlements (villages, cities, municipalities). Urbanism although it is tried to be defined, the term remains unclear, leaving opportunities to be defined in various ways. Achieving such a project can be carried out through collaboration between the surveyor and the architect.

In this paper we present management of the administrative territorial area "Orțișoara" through the importance of the collaboration between surveyor and architect.

For the architect to realize a project of such scale, the first step is to receive a precise Topographical survey made by the surveyor his opinion counts in every phase of this project so the collaboration between architect and surveyor must be maintained throughout the entire project.

Keywords: urban planning, General Urbanity plan, surveyor, architect

1. Introduction

Spatial management is through planning and urban planning, which are complex sets of activities of general interest that contribute to balanced spatial development, the protection of natural and built heritage and to improve living conditions in urban and rural.

Potential development areas and localities in Romania is evaluated by the existence of basic infrastructure, namely transport infrastructure and municipal technical, economic relations with the developed areas or immediate strong expansion. Also, the development potential of localities is given both the general trend of population growth in those areas, growth trend and the areas they are located.

As a result, activity planning, and planning has a strong impact on economic development by creating a national organization to lead balanced space directly to improving living conditions in urban and rural as well as territorial cohesion at regional level, national and European level.

Urbanism seeks to establish spatial development directions of urban and rural, according to their potential and aspirations of residents. The main objectives of planning activities are:

a) Improving living conditions by eliminating malfunctions, access to infrastructure, public services and affordable housing for all residents;

- b) Efficient use of land, in accordance with appropriate urban functions, controlled expansion of built-up areas;
- c) Protect and enhance the built and natural heritage;
- d) Quality assurance framework constructed, arranged and planted in all urban and rural;
- e) Protect the settlements against natural disasters.

About 80 % of daily decisions on national or local level, in different fields of activity, like demography, spatial planning, environment, hazard areas, infrastructure, housing, property evaluation etc. are spatially or geo-referenced. The modern surveying engineer assists in acquiring, managing, visualizing and analyzing geospatial data related to disasters. Combined with new technologies and methods, the challenging profession delivers the basic principles for disaster risk management within the disciplines geodetic engineering, satellite-based positioning, photogrammetry, remote sensing, geoinformatics and land management (figure 1) [4].

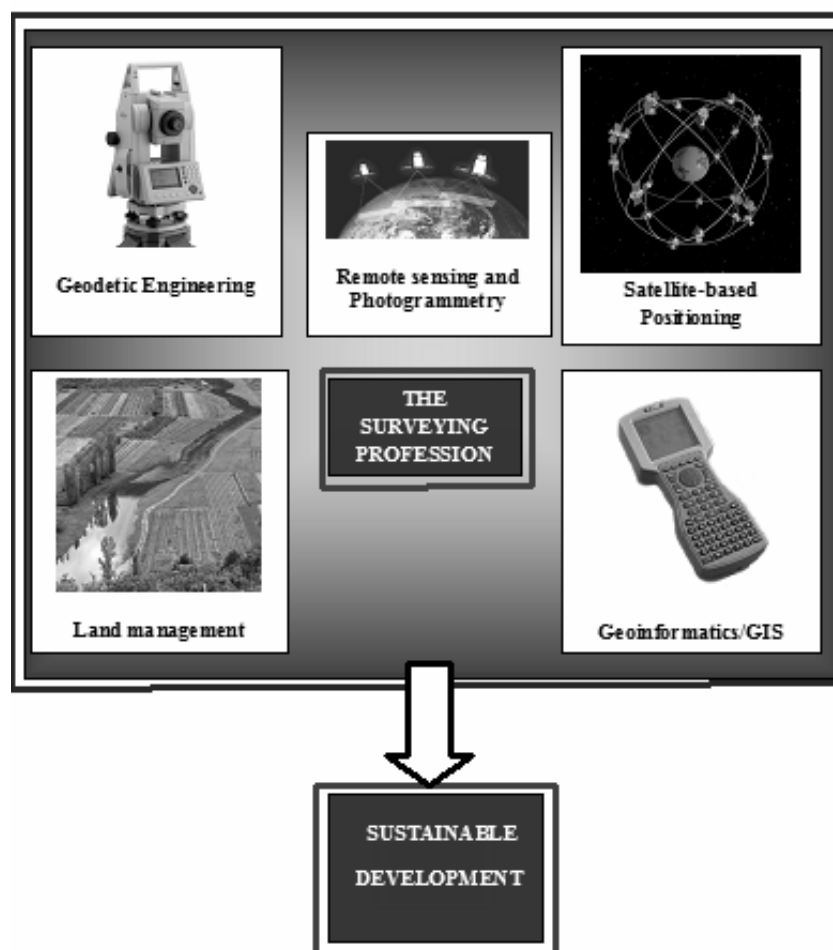


Fig.1 The importance of surveying methods for sustainable development

2. Aims and background

In this paper we present general urban plan of the village ORTISOARA. ORTISOARA village is situated in the western part of Romania in Plain Vinga. It is located

in northern part of the Timis county in the southern part of the Arad County limit boundary between two counties.

It crossed the National Road no. 69, 28 km from Arad and 24 km from Timisoara. The composition of the administrative territory settlements is found: ORTISOARA, Calacea, Cornești and Seceani (figure 2).



Fig.2 Satellite images with ORTISOARA town

Geographic location of the town was and is conducive to the development of society, settlement being at the turn of the plains and hills. City may be considered among the oldest in the Banat, in the area discovered the prehistoric animals. Another important feature is that the city is on the route connecting two cities Arad and Timisoara, with openness to the west of Europe. The village is mentioned in the Papal Register since anul1333 and will indicate the existence of village and other documents [5].

Official Map of the Austrian Empire in 1871 speaks Kokot town as a village administrative plains Mănăstur (figure 3). Representative of the village buildings date from this period also coincides with the colonization of the area of ethnic Germans. Colonization phenomenon will bypass Kokot town. After this settlement, the name change from the Orgyfalva Kokot, now making the first administrative division of the territory to be compensated former colonists who left home land and wealth. The village development planning and the emerging need for planning. In the years 1866-1868, was built railway that connects the two nearby cities, to provide opportunity for economic development of the

locality. After World War the city began to establish the first Romanian families as servants in the service of Germans families. Development area has brought increased number of Romanian families.

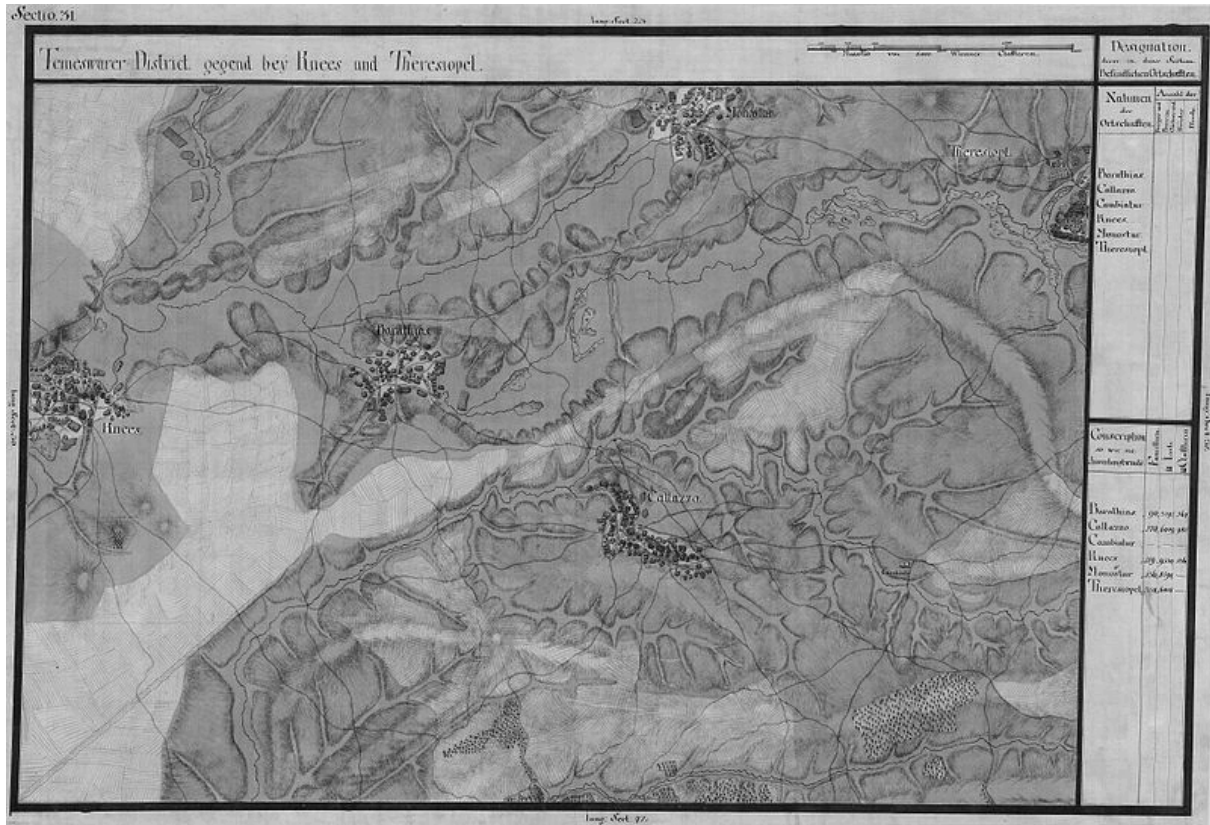


Fig.3 Official map of the Austrian Empire Banat-1871

Urban expansion was seen as a challenge, natural resources management and planning, structuring and creating new ways of communication are some tasks at all comfortable, which require good preparation and the insight of tomorrow.

Sustainable development in the locality ORTISOARA was a sensitive subject for the architect who carried out the project planning. He had to take into account information on environmental, economic factors that help develop the village, the geographical position, the necessities of community, factors that contributed to the necessities of General Urban Plan (figure 4).



Fig.4 General Urban Plan of the town ORTISOARA

As a definition, the General Urban Plan is a comprehensive documentation wishing to hire development measures, establish priorities and actions that are necessary for development of town for a determined period. Generally documentation of general urban plan is drawn up by architect built village consulting, existing plans and maps throughout the administration.

With the approval of the documentation role is to regulate infrastructure, environment through landscaping, land use, planning certificates and building permits.

In order to finalize the project by urban architect is very important collaboration with the engineer surveyor, especially since such a project involves risks and costs.

The achievement was made a General Urban Plan of the town ORTISOARA topographic surveys using a total station Leica TCR 805.

These are instruments with multiple applications that have the following general features:

- ◆ provide high accuracy and measuring and drawing angles equivalent within ± 2.10 seconds and distances of ± 2.1 cm / km;
- ◆ eliminates the appearance of personal errors, measurement and / or entering data in the book, because their registration is automatic;
- ◆ programs allow internal memory, based on measurements directly on the ground to obtain the coordinates of the surface and solving current problems;
- ◆ types and achievements are different, depending on the accuracy of performance measurement, available programs, functional autonomy, and the possibility of working without a prism or without the camera operator.

Because the village is positioned at the turn of plains and hills allowed the measurements in optimal conditions. So because of this modern technology topo-geodetic data transmission was possible to architect in a good time.

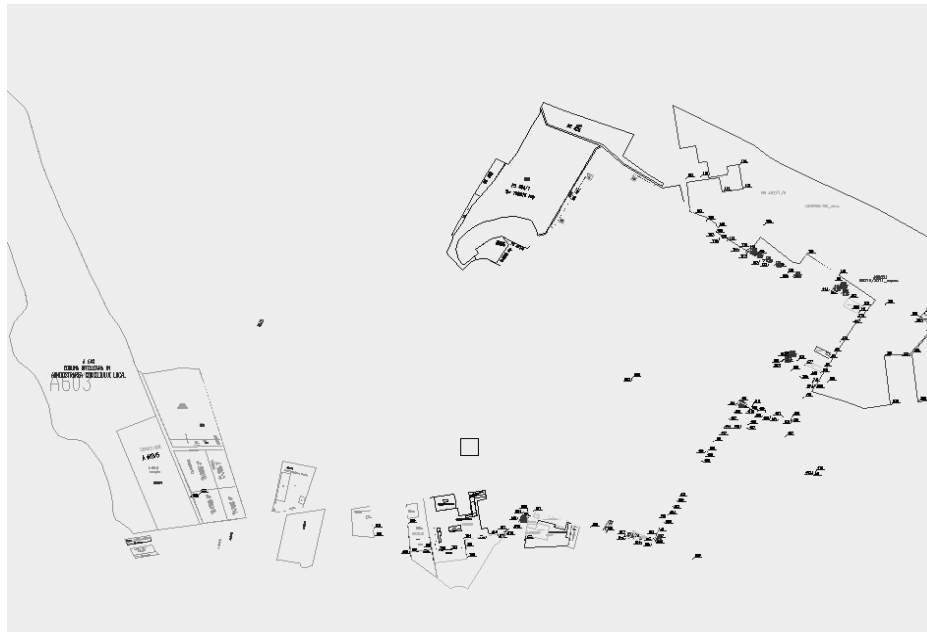


Fig.5 Topographical sketch of the town lift ORTISOARA

As we can see the plan as topographic lifting was done in a much shorter period compared to the period 1763-1787.



Fig.6 Topographic surveys of 1763-1787

After the set we conclude that the surveyor is best placed to deal with geospatial data implementation, it has the necessary qualifications. The nature of the job he has the ability to manage such data can be in touch between state land that is subject project and architect.

3. Conclusions

Management space as we have seen in this paper can only be achieved by running a project planning can be materialized only through approval documentation urban plans.

Stages of these urban plans are complex requiring teamwork. Important surveyor in the execution of these projects is fundamental and only through collaboration between it and the architect can do and comply with quality and sustainability planning. The surveyor is the one who knows best about the technical and legal situation of the land his opinion counts in every phase of this project so the collaboration between architect and surveyor must be maintained throughout the entire project.

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