

## REALISING THE TECHNICAL-JUDICIAL EXPERTISE USING THE TOPO-CADASTRAL DATABASE CREATED DURING THE HABSBURG EMPIRE

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**Abstract:** *Being part of the European Union means for our country to assume all the responsibilities upon the settlements emitted by the institutions of the European community as a proof of recognising the importance of a functional state of law, characterised through a rapid and efficient judicially practice. In the domain of topography and cadastre, the Romanian specialists were closely preoccupied with the multitude of problems raised by the realisation of the judicial technical expertise and of the extra – judicial technical expertise.*

*The means and the methods of conversion for the land register plans executed in the 19<sup>th</sup> century, from several projecting systems in the Stereografic 1970 national system, from analogic to digital format and the creation of a complex database for the dedicated executions, led to the administrative execution of the cadastre executions in good conditions for each administrative – territorial unit from the area of application of the Ordinance Law 155/1938.*

*The present paper aims to present some means and methods that are currently used for the practical activity necessary for the identification and the delimitation of the administrative – territorial units using the old topo-cadastral database, created during the time of the Habsburg Empire on the territory of our country.*

**Key words:** *topography, expertise, delimitation, plan, georeferencing.*

### 1. Introduction

The rhythm of the economic development in Romania after its EU integration represent, together with other factors, a proof for the importance of a functional state of law, characterised by a rapid and efficient judicial practice.

The working methods and techniques evolved in time in a close connection with the scientific achievements, stimulated in a continuous flux by the existent requirements and necessities, given by the need for ample representations and exact evidence of the territories obtained in equilibrated, complete quantitative and qualitative report. [4]

Starting with the old times, the territorial and administrative delimitations were a preoccupation and a point of interest for the rulers of those times.

The first traditional historical regions of Romania were delimited when the medieval kingdoms with a Romanian majority population have been established and popularly called: Transylvania, Moldavia, Walachia and Dobruja.

Romania consisted from two Romanian states: Walachia and Moldavia, after the unification made by princes Basarab and Bogdan,

There are nine traditional provinces in the contemporary Romania: Banat, Crisana, Transylvania, Bucovina, Moldavia, Oltenia, Walachia and Dobruja and there is another desired province to be added, in the opinion of the Government – Moldavia Republic.

We underline that some of these historical regions were larger than today’s territory of our country and even the territory of today’s Moldavia Republic. They are now territories of the neighbour countries (Crisana is prolonged in Hungary, Banat is prolonged in Hungary and Serbia, Maramures, Bucovina and Basarabia are prolonged in Ukraine, Dobruja is prolonged in Bulgaria). [7]



Diagram 1. The territorial and administrative map of Romania between 1925 and 1940

The first dedicated procedures in our country belong to Nicolae Milescu (1636-1708), Constantin Cantacuzino (1650-1714) and Dimitrie Cantemir (1673-1723) and reflect the interest of the Romanian princes for the topographic documents. The dedicated studies of those times led to topographic and cadastral maps and plans, with a detailed content.

The introduction of the cadastre in Banat, Transylvania and Bucovina, between 1794 and 1874, after the Austrian model represents the basis of detailed topographical data in Romania, through the cadastral registers of the owners and the cadastral plans designed to scales of 1:1440, 1:2880, 1:7200, 1:14400 etc.

In its evolution, the science of the terrestrial measurements for the Romanian specialists always presented the preoccupation for the multitude of problems linked to the activity of territorial delimitation – regional, local or private – inside extra-judicial technical procedures or judicial technical procedures.

The techniques for the conversion of the plans from the land register executed in the 19<sup>th</sup> century, from various designing systems into the Stereografic 1970 national system, from analogic to digital format and the creation of a complex data base for dedicated procedures led to an easier administrative and territorial delimitation for each area mentioned in the Decree Law no. 155/1938.

## 2. Defining the concepts of technical-judicial expertise and of territorial and administrative delimitation

In the dedicated literature, various definitions were formulated for the technical-judicial expertise as probation, but, in the opinion of some specialist in the terrestrial domain,

the definition is as follows: the technical-judicial expertise represent an examination with technical character made by one or more specialists, a research activity of various existing aspects, necessary for the establishment of the objective truth in a judicial cause, using special attested knowledge, at the request of judicial authority.

The technical-judicial expertise may be compared with the applicative scientific research, because the expertise represents a scientific research with the role of helping to find the truth in a given situation.

This scientific research is finalised through a research report of technical-judicial expertise, representing the technical-scientific document that describes the objective and the results of the activities from a research activity and the actions for the capitalization of the results. The cadastral delimitation, bordering as it was called at the beginning of the 9<sup>th</sup> century, represents the assembly of cadastral procedures which establish in an official manner the borders of the administrative territories mentioned in the law for the territorial delimitation of Romania.

The cadastral delimitation and the marking in the field of the borders is compulsory executed at the beginning of the introduction of the general cadastre and aims the surface of the administrative and territorial units. The design and the marking in the field of the national borders of Romania is the attribute of other institutions and use the general cadastre for the counties that are borders with the neighbouring countries.

After their importance for the cadastre, the borders are classified as follows: borders of the administrative and territorial units, village borders, within incorporated borders (rural, cities, municipalities), county borders, and borders for surfaces with various destinations (agrarian units, forests, waters, transports etc.), borders of private owners. [3]



Diagram 2. The administrative and territorial delimitation of the counties in Romania

### 3. The administrative territorial delimitation for counties Caraș-Severin, Gorj and Hunedoara – Romania. Case study.

The present paper has as objective the cadastral delimitation and the establishment of the borderline between the following counties: Caraş-Severin, Gorj și Hunedoara. We use as topo-cadastral support the cadastral plans from the time of the Habsburg Empire, edited to a scale of 1:2880, also a scale of 1:14400 for the surfaces from Caraş-Severin County.

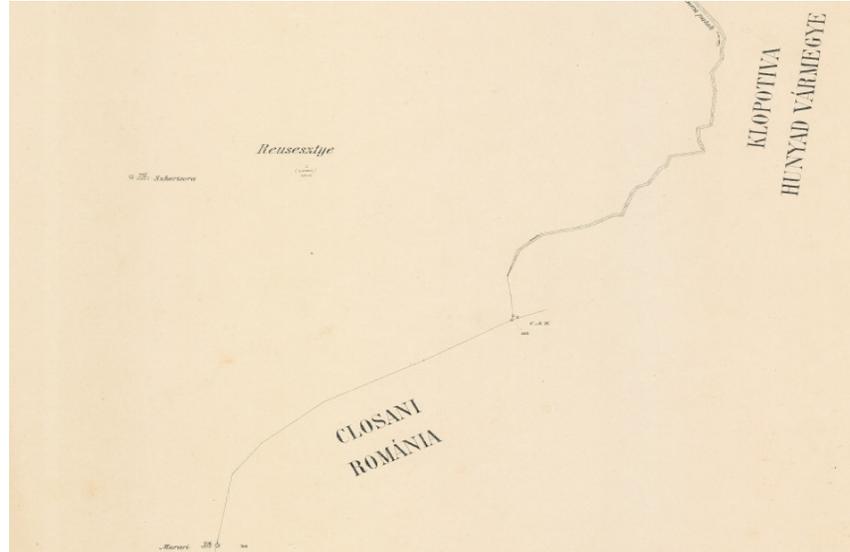


Diagram 3. Extract from the cadastral plan to a scale of 1:2880 for Măru, Zăvoi village, Caraş-Severin County, Romania.

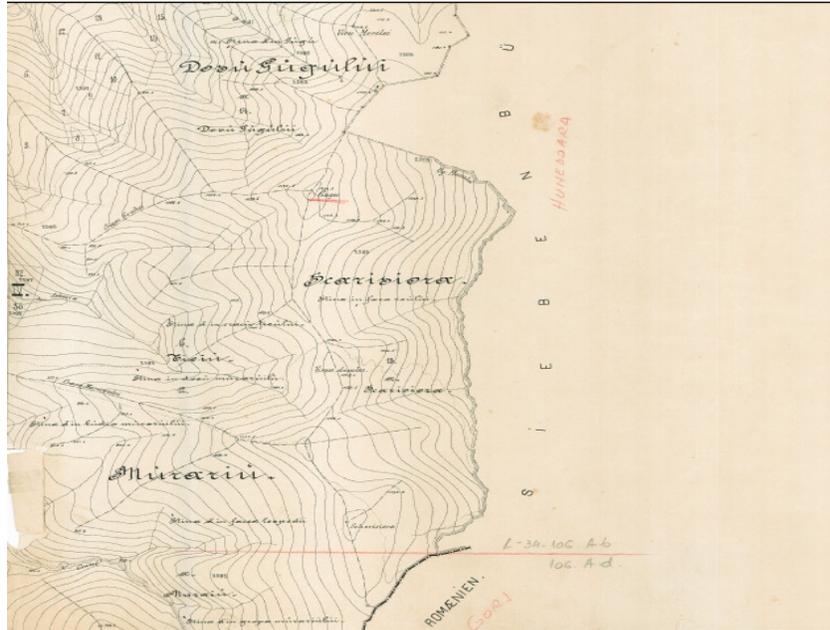


Diagram 4. Extract from the cadastral plan to a scale of 1:14400 for Măru, Zăvoi village, Caraş-Severin County, Romania

In order to analyse all the characteristic elements that are necessary for the correct delimitation in the present case study, we transposed, using the georeferencing, the two boards over the topographic elevation, resulting the mathematical point, called three borders

point, delimitating the administrative territory of the three counties: Caraş-Severin, Gorj and Hunedoara.

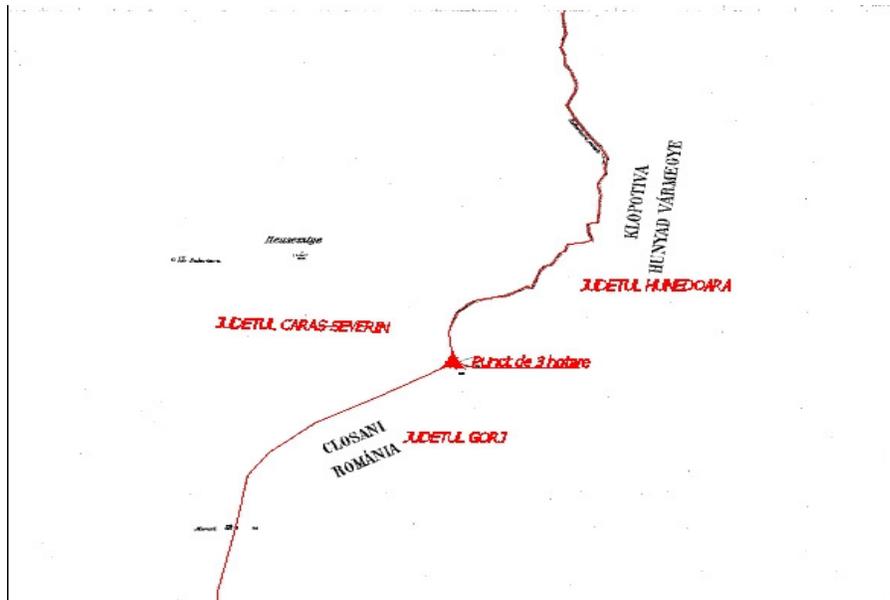


Diagram 5. The superposition of the topographical elevation using the georeferencing over the cadastral plan at the scale 1:2880 for Măru, Zăvoi village, Caraş-Severin County, Romania

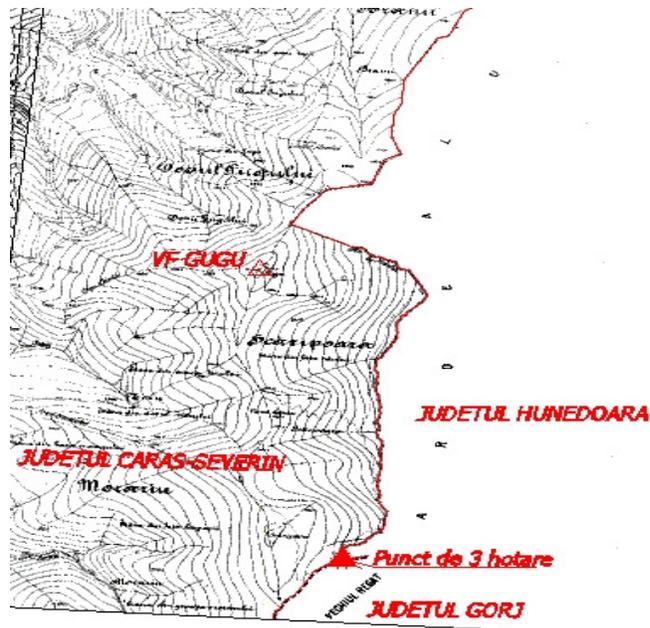


Diagram 6. The superposition of the topographical elevation using the georeferencing over the cadastral plan at the scale 1:14400 for Măru, Zăvoi village, Caraş-Severin County, Romania

As we may observe, both situations represented on the two cadastral plans, the county border for the three administrative units is given by the point called three borders point.

#### 4. Conclusions and proposals

This paper aimed to resolve a frequent problem for the cadastral procedures and the real estate publicity, requiring an administrative and territorial delimitation, using the data base existing since the Habsburg Empire and the digital technological method of georeferencing.

In the same time, considering the delimitation problems appeared in the activity of some specific institutions and of the specialists, especially for the borders delimitations, it is clear that the topographic base from the introduction of the general cadastre during the Habsburg Empire in areas as: Banat, Transylvania and Bucovina may serve to the technical needs for the identification and delimitation of the old borders.

Thus we consider that the results obtained using the georeferencing of the cadastral plans are very good and useful, due to the age of the maps and methods used for the design of the graphical representation during the Habsburg Empire.

The precision of georeferencing is proved good and very good for the case study, starting with the three borders point, marking the starting point in the correct delimitation of the three counties.

We may suggest that the presented determination method should be more often used by the specialist, for the judicial and extra-judicial delimitations. The implementation of this basic rule may be successfully used for the procedures of introducing the general cadastre by A.N.C.P.I., especially in the areas where exists this valuable graphic data base

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