Extension of property rights in the context of marking parcel lines in works related to cadastral parcel lines

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Ludmiła Pietrzak
Andrzej Hopfer
POLAND

Association of Polish Surveyors
Land and building register (estate cadastre)

- Mortgage deeds
- Property register
- Surveys
- Land classification
- Aerial and satellite images
- Laser scanning
- Spatial planning
- Public statistics
- Users of the cadastre
- Municipalities
- Other sources including ARiMR
- Remaining...
- Spatial planning
- Agents in the real estate market
- Real estate taxation
- Surveyors
- Real estate management
- Interested individuals
- Ministries
- Institutions: IMGW and others...
- Legal entities: PKP, GDDKiA, others...
- Taxes
- Agency for Restructuring and Modernisation of Agriculture
The Role of Land and buildings register in the national spatial information infrastructure

- **PRG- National register of borders**
- **INSPIRE data set for the theme ADMINISTRATION UNITS**
- **databases connected with cadastral parcels**
- **cadastre**
- **databases connected with cadastral buildings**
- **EMUiA** records of the streets and addresses
- **INSPIRE data set for the theme ADDRESS**
- **BDOT 10k** topographic database objects
- **INSPIRE data set for the theme BUILDINGS**
- **INSPIRE data set for the themes Transport networks, Hydrography, Land use...**

Source: GUGiK
Interoperability of the cadastral databases

Problems with interoperability

- objects are often **not integrated** in particular databases

- databases were created in **various time**, basing on **various source data, technical conditions, projects, demands** etc.,

- **spatial objects** (such as rivers, roads) **has changed their natural routes** with respect to periods when the cadastral documentation was developed,

- **objects were generalised at the database level**; their geometric descriptions were changed, what results in creation of an object which spatial description varies from the original.
Cadastral parcels (described by cadastral points) are the basic spatial reference object for public registers.

These objects have been legally defined in the Law of Geodesy and Cartography, being the basic legal act in the field of geodesy and cartography (and in executive regulations).
According to the law, geodetic topographic surveys are performed in such a way that the location of a topographic point, considering the closest points of a horizontal network or measurement network is specified with the accuracy not lower than: **0,10 m** – in reference to the closest points of control points network (first, second, third or measurement network).

The majority of objects of the cadastral documentation are included in the I group, including terrain details, which are explicitly identifiable in the field, which preserve permanent shapes and locations, in particular:
- symbols and border points,
- geodetic marks,
- constructions and building installations,

But in the end, the accuracy of location of the cadastral points must be not worse than **0,30 m** to the fundamental (first class control point network).

Such a regulations makes a lot of misunderstandings.
Difficult border regulations
Mark extension of the property right

- extension of the property right, determined by coordinates of location of a boundary point of a cadastral parcel
- understandable for a computer system which stores spatial objects.
- owner intends to visualise extension of the property right on the ground by physical marking - using a stable element, mostly a boundary stone.
Old boundary mark in Poland
Old boundary mark

Carved out in sandstone, a 1.5 metre-high border sign called the "main landmark" of the 19th century, which showed the border between Austria/the Austrian Empire (its section cutting across the Cieszyn Silesia) and the Kingdom of Prussia. Emblems of the bordering countries are placed at the top on the opposite sides: a crown—the emblem of Austria, and an eagle—the emblem of Prussia. Below the symbols is the number of this landmark: IX. This border stone is one of more than a dozen others surviving along the old border. The border was also marked with smaller signs and letters: Ö = Austria and P = Prussia.

A border bent north of a fish pond, 2.5 km north of the town Strumień in the Cieszyn county, Silesian Province. Co-ordinates: N: 49°56′9.0″ E: 18°45′4.6″

[Map of the area]
A granite pole measuring 2.15 x 0.36 x 0.50 m narrow at the top, placed as a border sign in the years 1290-1320 on the border of the Duchy of Nysa-Otmuchów ruled by the bishops of Wrocław. The border was known as Border of St. John Vikas. The front side of the stone bears a carved inscription in Latin: TMI / SCI / IOHIS, which stands for TERMINI SANCTI IOHANIS (St. John’s border). On the right side of the stone we can see a bishop’s staff as an attribute of his power and on the left side—a tilted cross.

This is the fourth of six such landmarks making up a set of unique medieval objects once used to mark borders and surviving now in the area of the present administrative border between the Opolskie and Lower Silesian Provinces.

Szklary, municipality of Kamiennik, Nysa county, Opolskie Province (by the road to the village of Węgorzyno).

Localization: N: 50°36′37.2" E: 17°8′41.5"
Mark extension of the property right

- In many countries regulations related to the cadastre allow for marking the boundary according to a special procedure connected with surveying works concerning the boundaries;
- sometimes it is not allowed to mark the boundaries this way.

In Poland it depends of the administrative procedure or surveying work should depend?
Cadastral maps in Poland after annexation

Source: GUGiK
Cadastral maps in Poland after annexation

Cadastral map after Austrian annexation

Cadastral map after Prussian annexation

Cadastral map after Russian annexation

Source: GUGiK
Boundary for marking

Map from Prussian cadastre

Map after Russian cadastre

Map from Austrian cadastre
distance about. 2,5 km, width about 15-20 m

If the boundaries would be marked on the ground as the stones - will be no place for agriculture
Boundary for marking – austrian cadastre in Poland
Difficult border regulations makes problem
OMG! YOU'RE RIGHT! YOUR CORNER IS OVER THERE.

Silly Me -
http://yourotherleftcomic.com/2013...
Thank you for your attention

• 1: Dr Pietrzak **Ludmila** (Poland)
  milka.pietrzak@gmail.com

• 2: Prof. Andrzej **Hopfer** (Poland)
  hopfer_wycena@poczta.onet.pl