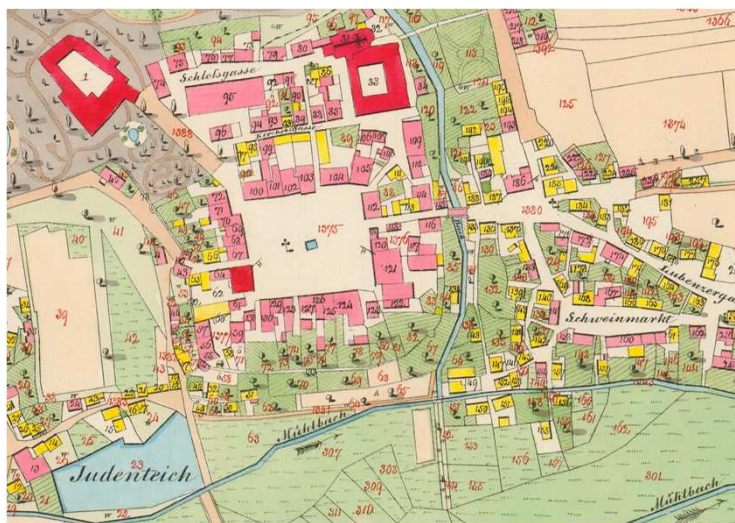


OWNER'S BOUNDARIES IN CADASTRAL INFORMATION SYSTEM

Libor Tomandl
Czech Office for Surveying, Mapping and Cadastre

FIG Working Week 2015, Sofia, Bulgaria, 19 May 2015

Emperor print of the map of the Stable Cadastre (1841)



Cadastral map of the Former Cadastre of Lands (1879-1955)

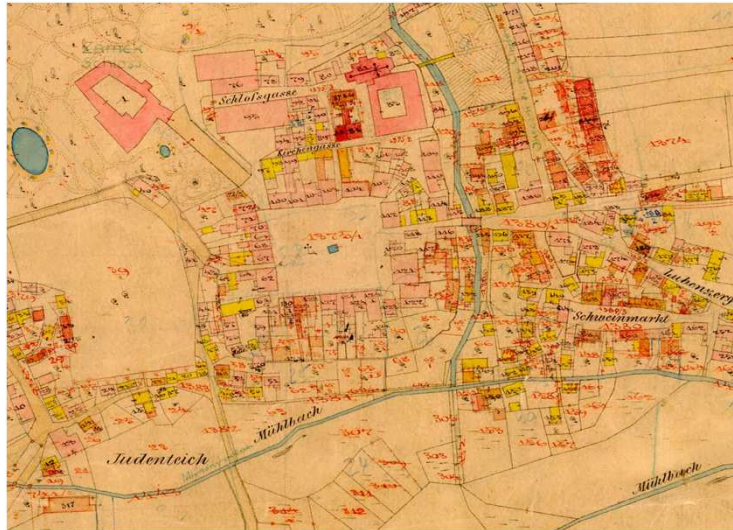


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Boundary Axioms

- ❖ There can be only one boundary between neighbouring parcels despite the sometimes different views of owners of neighbouring parcels and different presentations of the same boundary in the cadastre and in the field.
- ❖ Property boundary is something you need to share with at least one neighbour, the ideal condition is when a boundary is agreed with all of the owners of all neighbouring parcels.



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What does the legal value of boundaries lie on?



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Legal value of boundaries lies on

- **boundary stones?**



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Legal value of boundaries lies on

- boundary stones?
- cadastral maps?



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Legal value of boundaries lies on

- boundary stones?
- cadastral maps?
- measurements?

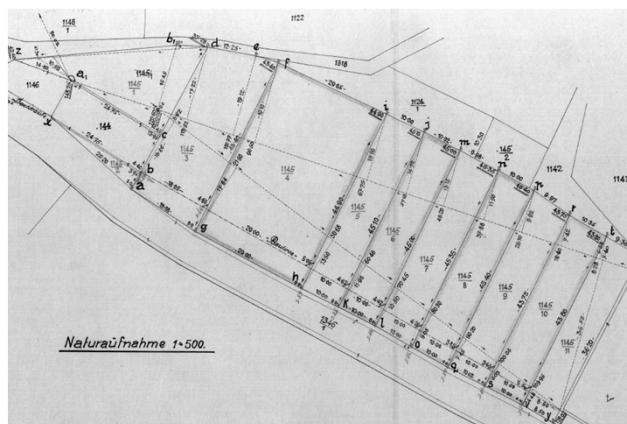


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Legal value of boundaries lies on

- boundary stones?
- cadastral maps?
- measurements?
- **coordinates?**

<i>Číslo bodu</i>	<i>Souř. Y</i>	<i>Souř. X</i>
18	848869,27	1012076,08
20	848867,44	1012074,48
21	848867,64	1012072,67
27	848864,01	1012084,30
32	848861,63	1012084,11
36	848855,50	1012062,15
37	848855,11	1012063,70
38	848845,67	1012065,58
39	848850,27	1012070,93
41	848849,79	1012078,52
42	848846,59	1012076,35



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Legal Value of Boundaries Lies on

- boundary stones?
- cadastral maps?
- measurements?
- coordinates?
- **visible boundary in the field?**



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Legal Value of Boundaries Lies on

- boundary stones?
- cadastral maps?
- measurements?
- coordinates?
- visible boundary in the field?
- **other?**



FIG Working Week 2015, Sofia, Bulgaria, 19 May 2015

Legal Value of Boundaries Lies on

- boundary stones?
- cadastral maps?
- measurements?
- coordinates?
- visible boundary in the field?
- **other?**

**from country to country, from case to case:
different approach, different solutions**



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Different presentations of a boundary

- ❖ original (legal) boundary
- ❖ registered boundary in the cadastre
- ❖ actual boundary in the field

- Is it possible to put all of these presentations of the same boundary into one presentation and how?



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1. New Cadastral Mapping

- ❖ Conceptual solution for larger compact areas
- ❖ It cannot be just a technical process of measuring but it has to be primarily a legal procedure - adjudication and negotiation of indisputable boundaries in the field with all the owners involved
- ❖ Process is extremely time-consuming, costly and particularly demanding in terms of suitable human resources
- ❖ Staff should not only be experienced in the issue of cadastre and its history and developments but they should also be skilled negotiators and mediators.



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Profits from new cadastral mapping

- ❖ vast majority of registered and legally binding parcel boundaries coincide with actual state in the field which is approved by owners
- ❖ accuracy of determining boundaries of all real estates in a territory is the same with only a few exceptions
- ❖ parcel area corresponds with reality - tax, sale or purchase
- ❖ greater confidence in the reliability of cadastral data - minimizing the number of boundary disputes and proposals for correction of errors in the cadastre
- ❖ easier transition to 3D cadastre
- ❖ more reliable and easier designing engineering structures with respect to ownership



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Territorial comprehensive mapping
will not need to be repeated
providing the appropriate legal and
technical update is set!



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Case of the village of Potůčky

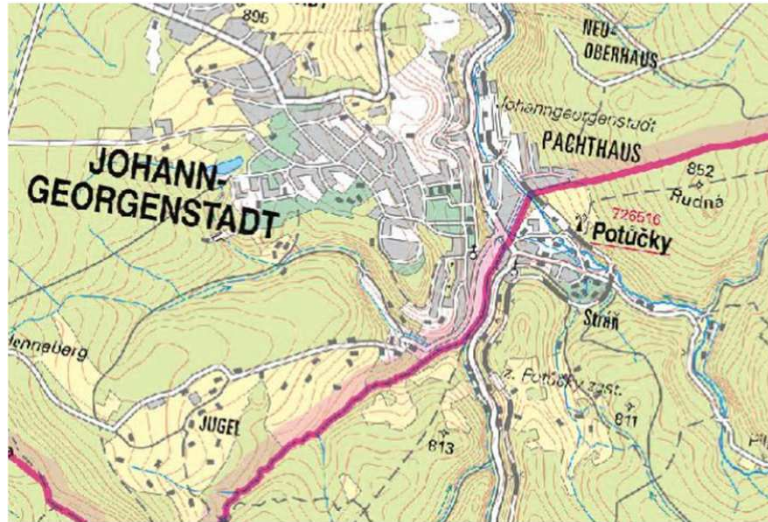


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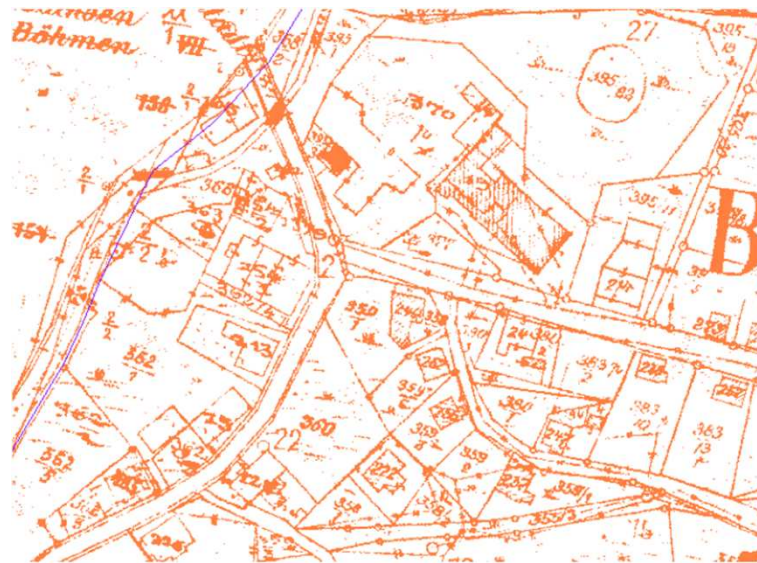


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2. Easy solution for two or more neighbours

Legal assumption:

The will of the owners takes priority over all other methods of determining of a parcel boundary

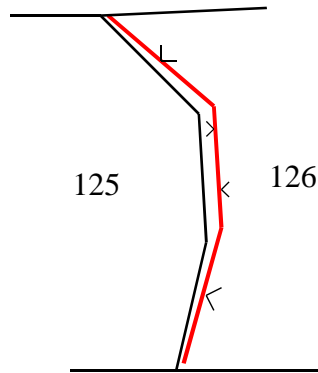
- ✓ approved boundary is measured
- ✓ survey sketch is issued
- ✓ affirmative declaration on the approved boundary is signed by owners
- ✓ declaration is registered in the cadastre on the request of owners



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2 examples

Visible boundary



Future boundary

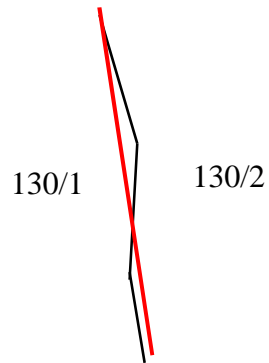


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Conclusions



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Thank you for your attention!

