

Publication of Cadastral Maps in Hungary and in Croatia

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We digitize everything

- Large format scanner: maps, posters,plans
- Book scanners. Medieval chartes, old books
- Document scanners: books, documents, postcards
- Qidenus Robotic Book scanner with automtic page turning system

User: Archives, library, museum

- Archivportal.hu: common database of Hungarian Archives: every publication in PDF, Communist party documents, Cadastral maps, testaments, etc
- Museum.hu: every publication (1 mil lion pages) in searchable PDF,150.000 postcards
- Parliament library: 1861-1990 (900.000 pages) of Parlimnt speaches
- News agency: News (1920-1949) 900.000 pages



















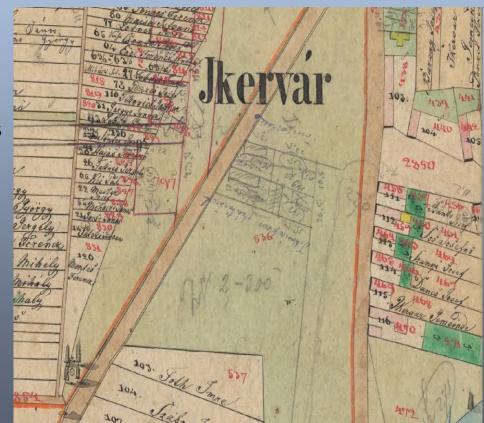






Maps in county Archives

- Small (33×26 cm), colored sheets with owner name
- Stored in county Archives, quality is poor
- 10.000 sheets / county
- We digitized about 100.000 sheets (9 counties from 19): Bács, Békés, Fejér, Heves, Nógrád, Tolna, Somogy, Szabolcs, Szolnok, Vas
- 300 DPI, true color, uncompressed TIFF
- About 30% of sheets is missing
- The other 10 counties does not have Cadastral map collection (or very few)





















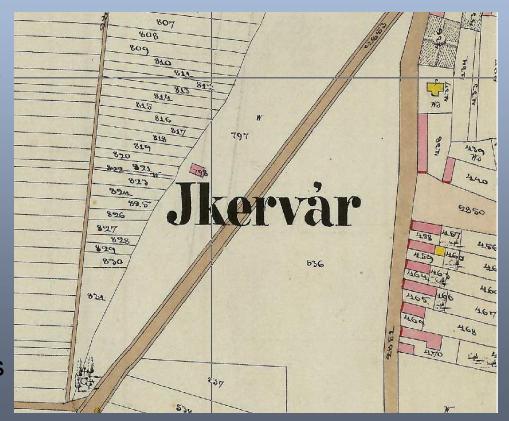






Maps in National Archives

- Big (66×53 cm), uncolored sheets without names
- Stored in National Archives (...and Land Registry)
- 2500 sheets / county
- We digitized the whole collection: 45.000 sheets today Hungary, 36.000 sheets from outside (copy)
- There are many drafts, copies and poor quality sheets
- Only 5-6 (from 19) counties are complete



























The goal

- To publish the whole collection on Internet and/or offline (e.g. on DVD-ROM)
- It is necessary to publish both collection (county Archives and National Archives)
- It is necessary to use GIS (GeoInformatic System) in publication (georeferencing), it gives the best result





















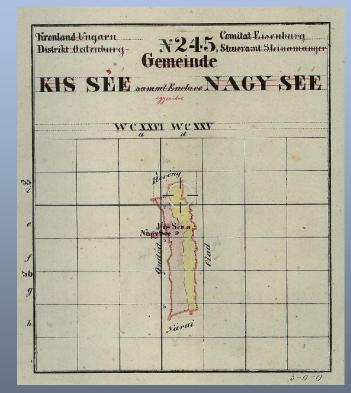




Georeferencing in practice

- We have theoretical knowladge (ellipsoid, projection system, projection parameters)
- We need skeleton of a village and coordinates of a sheets
- If we have luck we have both, if we do not have...























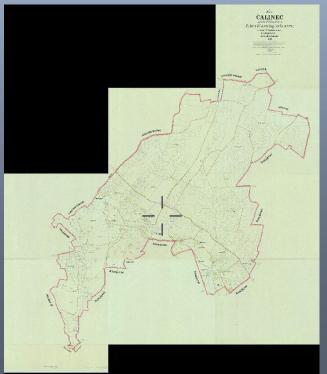


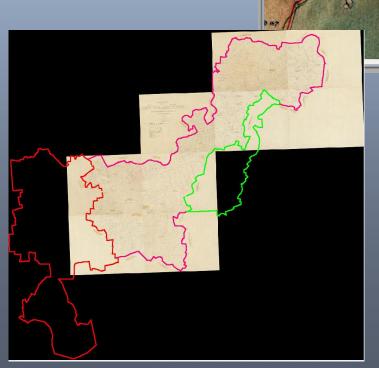




Georeferencing in practice

- We have to define the corner points of the sheets
- The result is mosaic of the settlement
- The next step: drawing the settlement border to make a county mosaic























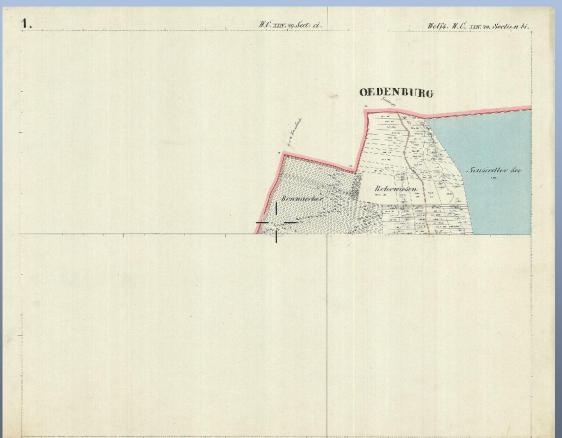






The problems of georeferencing

- No skeleton, no coordinates
- Irregular sheets (instead of 2 regular)
- Mistake in original coordinates
- Sheets from different time period
- Different system in one county (in Croatia the military border in Budapest center, other part in Ivanic system)



























The result

- County mosaic
- The accuracy is 15-20 meters
- We have GPS for every pixel, the whole collection is in GIS system
- We have 10 county mosaic from county Archives and 5 from National Archives
- Only one (Vas county) have both



Szabolcs























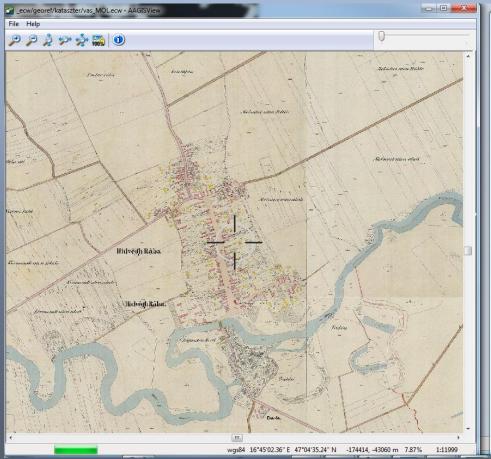


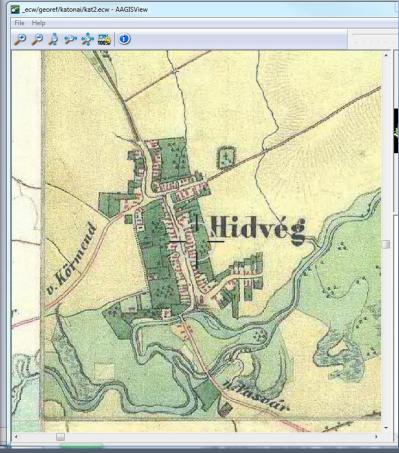




Publication

 on Internet, on DVD-ROM with software developed by ARCANUM together with the military survey of Habsburg Empire. Users: hydrologist, archeologist, national heritage office, national parks, local historian, family researcher























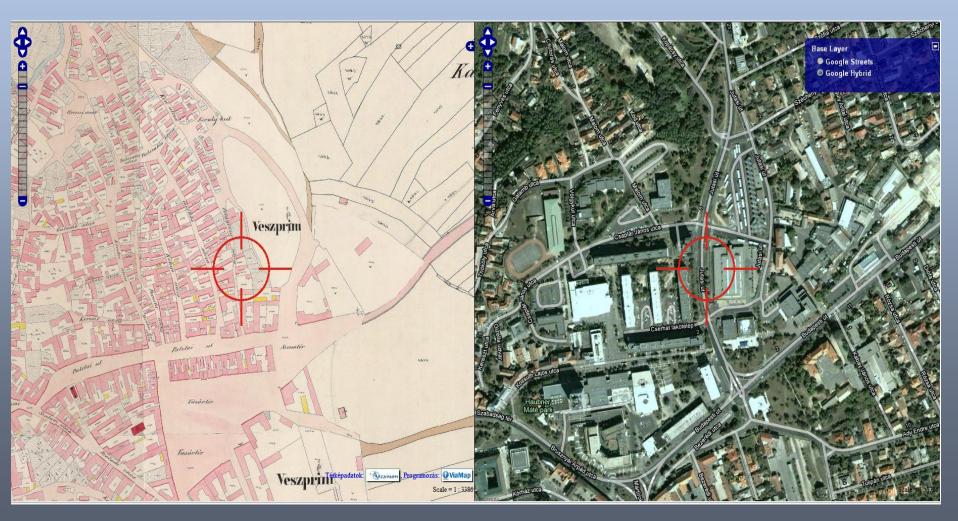






Publication

on Google maps with today maps



























Croatian cadastral maps

- 30.000 big sheets in National Archives without Dalmatia and Istria
- Military border: 1852-1857, other parts: 1862-1867 (and later)
- Scanning in Zagreb: 300 DPI, true color, uncompressed TIFF (3 TByte)
- Special problems: different projection system in one county, many irregular sheets, special forest sheets
- Common investment: Archives give the maps ARCANUM makes the scanning, georeferencing and publication for publication rights
- Publication on DVD (one county one DVD)
- The project in final state: we look for the missing settlement and missing sheets
- Publication in 2010

Thank you for your attention!



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