

# Use the crowd - georeferencing of old maps at ETH Library

Maps in Libraries 2019, IOS, Regensburg, 13 and 14 March 2019

Roman Walt, ETH Library

# Agenda

- Portrait map department ETH Library
- From the box to the web
- 1<sup>st</sup> map crowdsourcing project (2017)
  - Workflow
  - Challenges and Results
- 2<sup>nd</sup> map crowdsourcing project (April 2019)
- Summary

# Portrait map department ETH Library

- Since 1972
- About 400'000 map sheets, 1'250 atlases, 700 maps before 1850
- Thematic focuses: Scientific, technical and topographical maps and atlases from the 19th to 21st centuries: Single maps, map series, plans of cadastral surveying, city maps, panoramas, satellite photographs, etc.
- Spatial data from the Federal Office of Topography swisstopo
- Platforms:

Kartenportal.CH

*ETHorama*

rara



# From the box to the web

- Maps from the 18<sup>th</sup> & 19<sup>th</sup> Century have been digitized since 2013 and published on e-rara.ch
- Maps from Switzerland, City Maps, folded maps (2013 – 2017), Atlases (2018/2019), plane maps worldwide (2019+)
- Currently there are 1'349 Map titles available via e-rara.ch (11.03.19)

The image shows two screenshots of the e-rara.ch website. The top screenshot displays the record for a map titled 'A Kínai Birodalom Terkepe'. The record includes the following details:

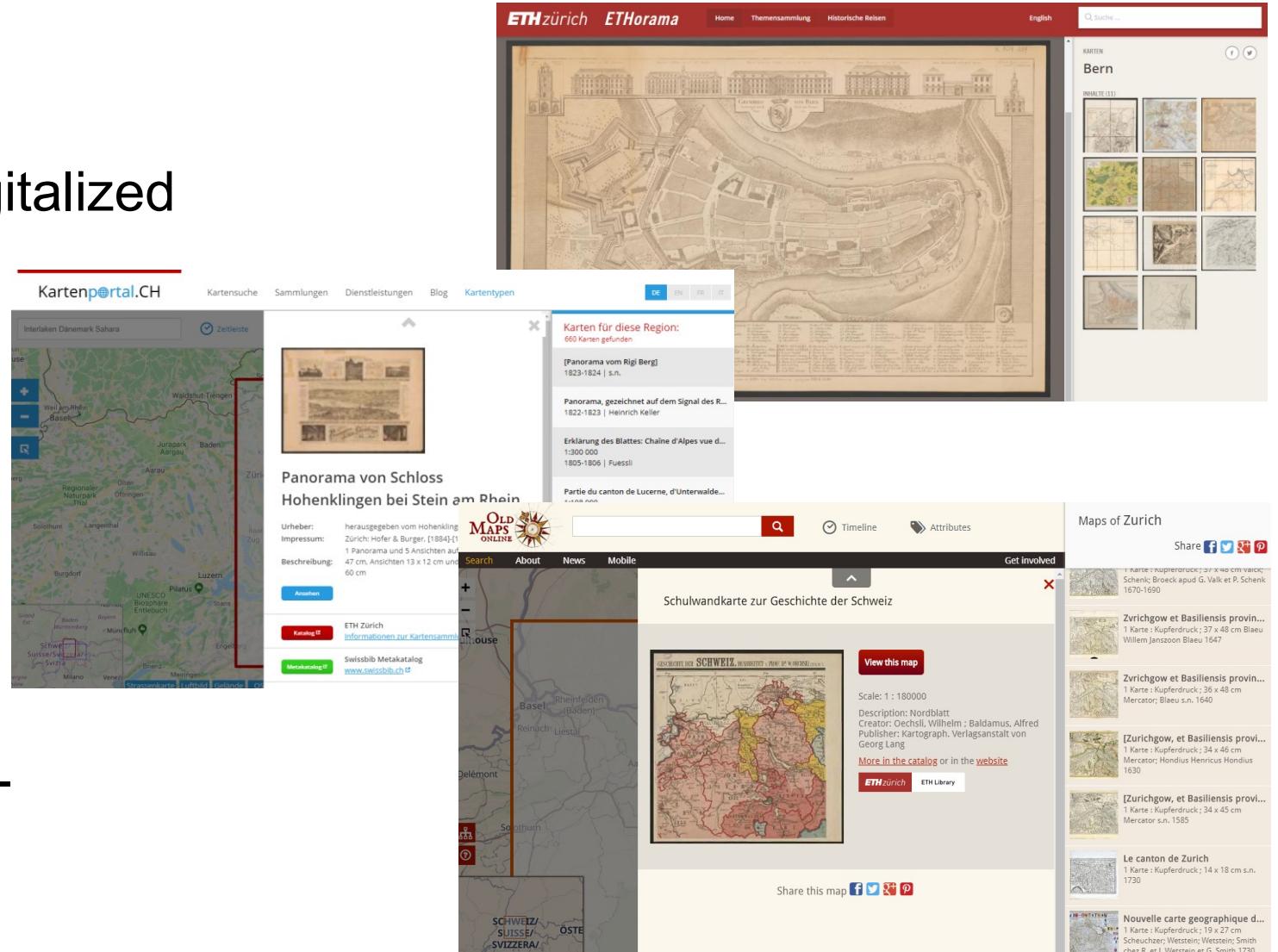
- Titel:** A Kínai Birodalom Terkepe : Gróf Széchenyi Béla keletásiai expedíciója (1877-1880) eredményeinek és az újabb utazások adatainak alapján / tervezte Lóczy Lóczy Lajos
- Autor, Beteiligte:** [Lóczy, Lajos](#) [1849-1920]
- Impressum:** [Budapest : Ferenc Kohout, 1886](#)
- Umfang:** 1 Karte : farbig ; 56 x 71 cm
- Sprache:** Ungarisch
- Kartendaten:** 1:7 500 000 (E 73°29'-E 134°46'/N 53°33'-N 18°09')
- Besitzende Institution:** ETH-Bibliothek Zürich, [K 281035](#)
- Persistenter Link:** <http://doi.org/10.2933/e-rara-74420>

The bottom screenshot shows a larger view of the same map, which is a detailed topographical map of the Kingdom of Hungary, showing cities, rivers, and terrain. The map is titled 'A Kínai Birodalom Terkepe' and is a color print.



# From the box to the web

- Various access and use of digitalized maps
  - e-rara.ch
  - ETHorama
  - Kartenportal.CH
  - Oldmapsonline.org
- Public Domain Mark 1.0
- New Interface upcoming for e-rara.ch: IIIF

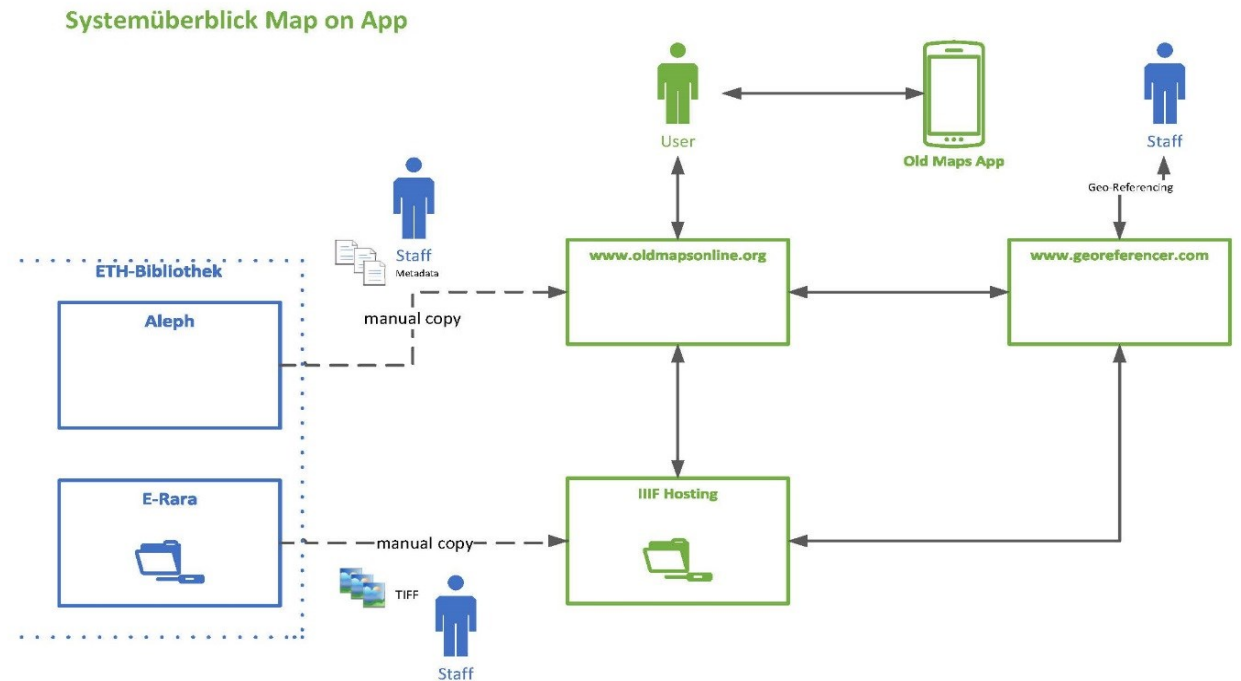


# 1<sup>st</sup> map crowdsourcing project (2017)

- Goals (project «Map on App»):
  - Possibility of using the digitized maps of the ETH Library on all terminals.
  - Creation of the prerequisites for georeferencing the digital representations for further scientific processing in GIS programs.
  - Stronger perception of the high-quality scans on e-rara.ch in a broader interested public via the platform oldmapsonline.org

# 1<sup>st</sup> map crowdsourcing project (2017)

- Workflow
  - Harvesting metadata and TIFF-Files
  - Mapping and interlinking  
Publishing 1'135 map sheets on oldmapsonline.org and IIFHosting (Klokan)
  - Using Georeferencer V3
  - Crowdsourcing period  
(planned): 10.01. - 30.04.2017



22.6.2016, ITS GG

# 1<sup>st</sup> map crowdsourcing project (2017)

## ■ Mapping

volid	6484179
title	Carte géologique du Pays d'Enhaut vaudois 1:50 000
responsibility	Hans Schardt; Schweizerische Geologische Kommission
year	1887
extent	1 Karte : mehrfarbig ; 40 x 37 cm
idn	000416768
scale	1:50 000
coordinates	(E 06°59-E 07°15/N 46°33-N 46°23)
name	Schardt, Hans Schweizerische Naturforschende Gesellschaft Schweizerisch Geologische Kommission.
publisher	Wurster & Randegger
place	Winterthur

Mapping e-rara.ch

id	6484181
viewer	http://www.e-rara.ch/zut/content/zoom/6484181
title	Carte géologique du Pays d'Enhaut vaudois 1:50 000
date_from	1887
date_to	1887
north	46.55
south	46.38
east	7.25
west	6.98
catalog	http://www.library.ethz.ch/DADS:default_scope: ebi01_prod000416768
pubdate_from	
pubdate_to	
description	
creator	Schardt, Hans
contributor	
publisher	Wurster & Randegger
physical_width	400
physical_height	370
scale	50000
thumbnail	http://www.e-rara.ch/image/thumb/6484181
image_protocol	Zoomify
image_service	
license	
download	
dpi	

id	6484181
filename	6484181.tif
viewer	http://www.e-rara.ch/zut/content/zoom/6484181
title	Carte géologique du Pays d'Enhaut vaudois 1:50 000
date_from	1887
date_to	1887
north	46.55
south	46.38
east	7.25
west	6.98
catalog	http://www.library.ethz.ch/DADS:default_scope: ebi01_prod000416768
pubdate	
description	
creator	Schardt, Hans
contributor	
publisher	Wurster & Randegger
physical_width	400
physical_height	370
scale	50000
thumbnail	http://www.e-rara.ch/image/thumb/6484181
image_protocol	Zoomify

Mapping oldmapsonline



# 1<sup>st</sup> map crowdsourcing project (2017)

- Challenges
  - Mapping metadata
  - Community Building
  - Unknown quality of public georeferenced data
  - sustainable interest



// Wissen Sie mehr? Sie wussten mehr! Projekte

ETH BIBLIOTHEK | Crowdsourcing Mitmachen / Multimedia / Statistik / Über uns / English

Aktuelles und Erfahrungen aus der Community

**Klokant Technologies**  
@klokantech Folge ich

A new [#georeferencer](#) is coming!  
Visit [eth.georeferencer.com](#) and start georeferencing! [@ETHBibliothek](#)

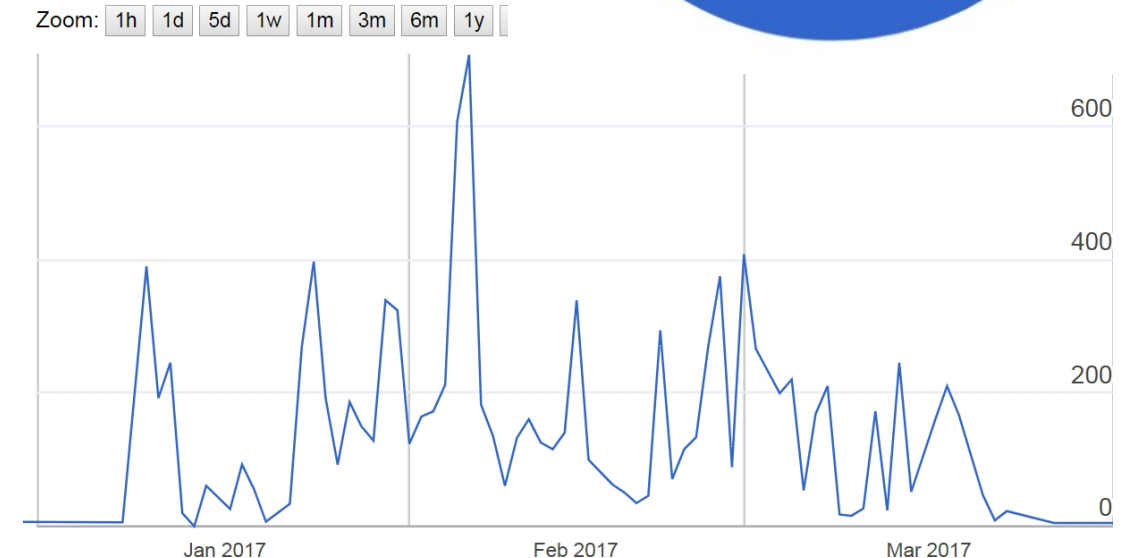
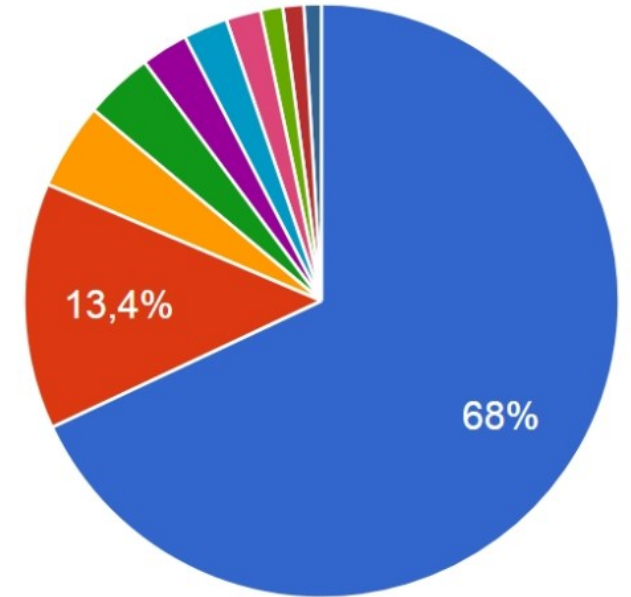
Original (Englisch) übersetzen

RETWEETS 14 GEFÄLLT 20

23:25 - 9. Jan. 2017

# 1<sup>st</sup> map crowdsourcing project (2017)

- Results
  - Support from the «Bildarchiv» Crowdsourcing Community
  - 50 participants
  - Few (retired) people did most of the work
  - High quality in georeferencing the map sheets
  - Georeferencing had been finished four weeks before end of planned period



# 2<sup>nd</sup> map crowdsourcing project (2019)

- Upgrade to Georeferencer V4
- 1'800 map sheets from 208 different titles (most of them atlases)
- Crowdsourcing period (planned): April & May 2019
- Main Challenge (preparation): Metadata (records) just for items (atlas), not for map sheets

C	D	E	F	G	H	J	K	L	M	N
sysnr	id	filename	viewer	title	date_from	north	south	east	west	catalog
001888793	18448916	18448916.tif	http://www.e-rara.ch/zut/content/zoom/18448916	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448918	18448918.tif	http://www.e-rara.ch/zut/content/zoom/18448918	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448920	18448920.tif	http://www.e-rara.ch/zut/content/zoom/18448920	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448922	18448922.tif	http://www.e-rara.ch/zut/content/zoom/18448922	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448924	18448924.tif	http://www.e-rara.ch/zut/content/zoom/18448924	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448926	18448926.tif	http://www.e-rara.ch/zut/content/zoom/18448926	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448928	18448928.tif	http://www.e-rara.ch/zut/content/zoom/18448928	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448930	18448930.tif	http://www.e-rara.ch/zut/content/zoom/18448930	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448932	18448932.tif	http://www.e-rara.ch/zut/content/zoom/18448932	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448934	18448934.tif	http://www.e-rara.ch/zut/content/zoom/18448934	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448936	18448936.tif	http://www.e-rara.ch/zut/content/zoom/18448936	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448938	18448938.tif	http://www.e-rara.ch/zut/content/zoom/18448938	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448940	18448940.tif	http://www.e-rara.ch/zut/content/zoom/18448940	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
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001888793	18448944	18448944.tif	http://www.e-rara.ch/zut/content/zoom/18448944	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448946	18448946.tif	http://www.e-rara.ch/zut/content/zoom/18448946	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448948	18448948.tif	http://www.e-rara.ch/zut/content/zoom/18448948	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
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001888793	18448954	18448954.tif	http://www.e-rara.ch/zut/content/zoom/18448954	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448956	18448956.tif	http://www.e-rara.ch/zut/content/zoom/18448956	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
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001888793	18448960	18448960.tif	http://www.e-rara.ch/zut/content/zoom/18448960	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448962	18448962.tif	http://www.e-rara.ch/zut/content/zoom/18448962	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa
001888793	18448964	18448964.tif	http://www.e-rara.ch/zut/content/zoom/18448964	Stieler's Hand-Atlas	1833	90.00	180.00	-180.00	180.00	http://www.library.ethz.ch/DADS:defa

# Thank you for your attention!

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