

Old photographs from family archives ... using historical documents to investigate alien species

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Introduction & Overview

- Historical photographs
- ➤ How to identify and collect some examples to involve citizens
- Other types of information
- Digital collections and involving citizens

What one can find in historical photographs...

- > ... the same as in present photographs
- ➤ BUT often in **less good quality** and for older periods animals and plants only in black and white
- ➤ Likely limited to larger animals and plants
- Invasion dynamics ? hard to predict how much can be gained
- ➤ How to approach interested citizens?







© Bezirksmuseum Floridsdorf (above); MA45 – Wiener Gewässer

Topothek (topothek.at) – an example of local citizen science

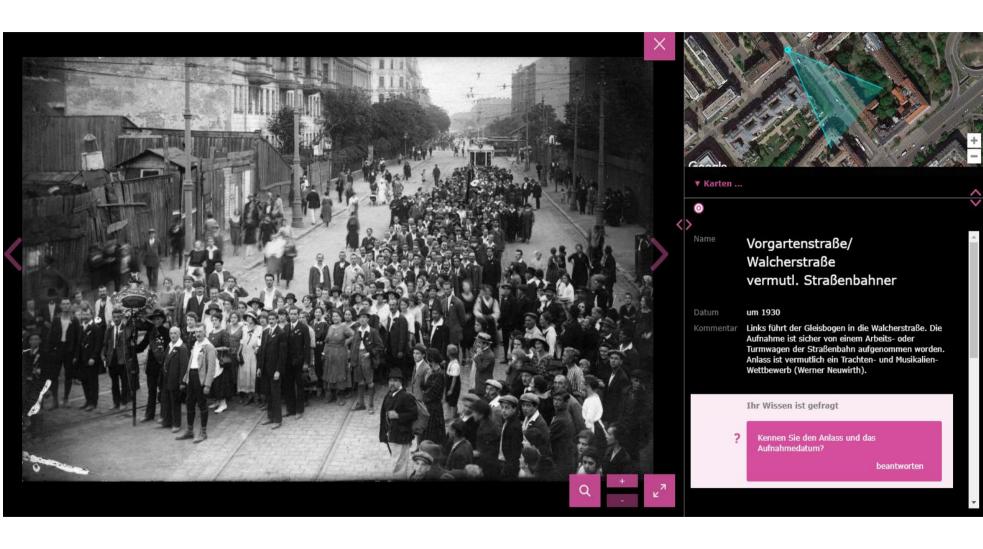


- virtual collection of pictures, maps, video and audio recordings with exact location, dating and indexing
- Objective:
 - ➤ to make private historical material and knowledge visible to the general public with cooperation of local people
 - > to make it accessible to science
- Most "topotheks" in Austria, meanwhile also in Germany, Estonia, Finland, Italy, Croatia, Romania ...

Example: Tree of heaven - Ailanthus altissima



Example: Tree of heaven - *Ailanthus altissima*



Example: Fish and fishery associations

1st Viennese Fishery Museum

1. Wiener Fischereimuseum

OREK2E1

Photographs,
Written documents
Mounted animals ...













Klicken Sie auf die Bilder, um diese zu vergrößern.



















Example: Fish - fishery associations

➤ Peter Pfenninger Schenkung Liefering, founded 1877 (much older predecessor assoc.)





Gewässer & Lizenzen >

Two further potential types of historical information

- Collect films together with photographs
- Interviews "oral history"
 - ➤ Identify people who have observed nature, animals and plants for long periods (from private associations of botanists, ornithologists, etc.)
 - Make interviews, maybe based on photographs of targeted alien species

Involving citizens to explore digital institutional collections/sources

- Many museums, archives and other institutions host relevant historical written documents and visual material
- Some of them have even already **digitized material online**, e.g. Biodiversity Heritage Library (currently the worlds largest digitization project of biodiversity), less specialized in biodiversity is Gallica (French National Library)
- ➤ It needs huge resources to explore these online collections →
 - ? Select useful (parts of) collections and involve citizens to analyze and transcribe ...

Involving citizens to explore digital institutional collections/sources

- Example: Plant Letters (https://www.zooniverse.org/projects/catedraunesco/plant-letters)
- A project of zooniverse (https://www.zooniverse.org/)
- Plant letters = a collection of almost 5000 handwritten letters, species lists, notebooks and other documentation addressed to directors, gardeners and other collaborators of the Botanic Garden of the Univ. of Coimbra;
- ➤ Records of Portuguese botanical science and expeditions of plant discovery, collection and identification in more than five different languages covering the period from c. 1870 1928
- Kept at the University of Coimbra (UC), Life Sciences Department

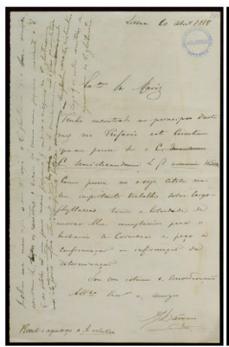
Plant letters (https://www.zooniverse.org/projects/catedraunesco/plant-letters/about/results)

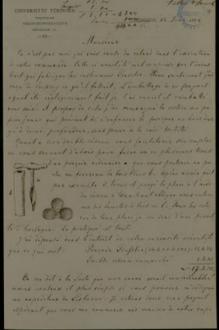
We intend to transcribe a total of 4588 letters, the oldest dated from March 20, 1870.

So far, we have identified 1118 national and foreign correspondents, from academic and non-academic backgrounds.

With your help in transcribing the letters, we want to retrieve information which can include:

- · inquiries and doubts on plant classification and taxonomy;
- · historical plant species locations, distribution records and abundance;
- · biological material circulation (plant and seed exchanges);
- · track the path of herbarium and museum specimens in our collections;
- · unravel networks of botanical knowledge.







Conclusions – would I have to start such a task ...

- ➤ Identify existing (private) associations including e.g. private natureconservation organizations
- Identify existing private initiatives which host already digital archives (e.g. Topothek)
- Involve citizens for collecting or analyzing existing visual material and for interviews
- ➤ Identify institutions such as museums, archives, libraries, which host historical biodiversity material and have maybe already digital repositories
- Select species which promise good results and/or select specific places/regions (esp. for interviews)

A personal announcement ...

Non-Native Species and Biodiversity Change in River Ecosystems: A Historical Perspective



- Research Topic of Frontiers in Ecology and Evolution:
- Call for abstracts: 31st March 2020
- Manuscripts: 30th Sept. 2020

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Objective in brief:

➤ To compile and advance knowledge on the long-term alteration of river biodiversity by non-native species

Further details: https://www.frontiersin.org/research-topics/12695/non-native-species-and-biodiversity-change-in-river-ecosystems-a-historical-perspective

Thank you for your attention!