

# AIS, reloaded

Michele Loporcaro<sup>1,2</sup>, Stephan Schmid<sup>2</sup>, Diego Pescarini<sup>1</sup>

<sup>1</sup>Romanisches Seminar, Universität Zürich, <sup>2</sup>Institut für Vergleichende Sprachwissenschaft, Universität Zürich

## 1. Objective

The general objective of the programme is to compare the material contained in the *Sprach- und Sachatlas Italiens und der Südschweiz* (AIS), providing a fine picture of Italo-Romance and Rhaeto-Romance vernaculars as spoken between 1919 and 1928, with data on present-day dialects collected in the same locations.

Having a detailed description of the dialects at some one hundred years' distance, we intend to compare the two chronological stages with a mixed methodology including both qualitative and quantitative techniques supported by state-of-the-art digital facilities such as information retrieval systems searching for linguistic information, audio/video streaming, and a Geographical Information System (GIS), which incorporates not only the representation but also the analysis of geographic linguistic data.

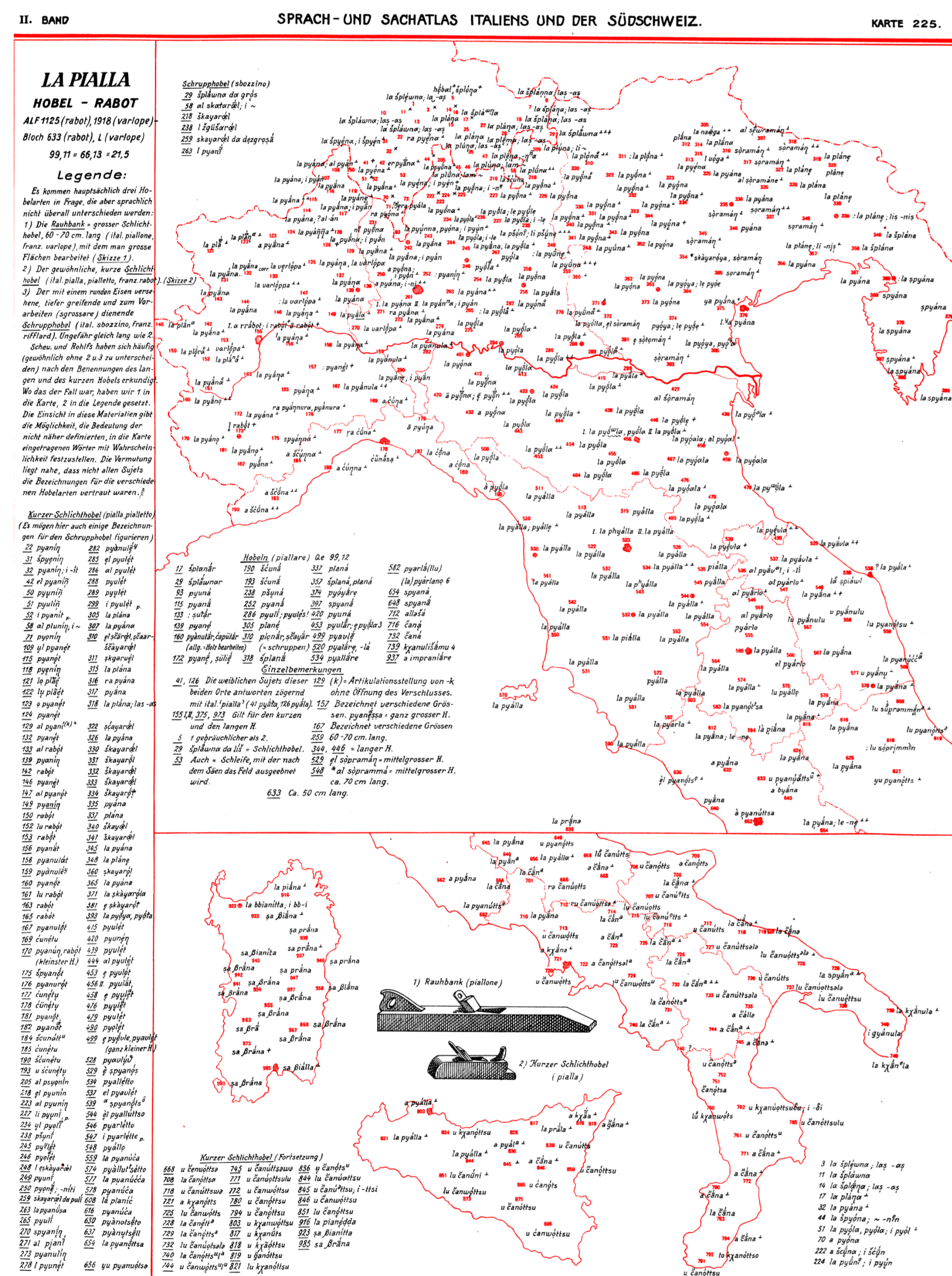


Fig.1: Example of an AIS map; no. 225: *la pialla* ('the planer')

## 2. Expected Results

The project aims to

- 1) digitalize part of the 1920s AIS (around 50%);
- 2) carry out new fieldwork in Switzerland (Ticino and Grisons);
- 3) build a database, a search engine and a GIS interface (Graphic Information System) in order to manage, retrieve and present the data;
- 4) develop new lines of research on four main topics:
  - the syntax of subject pronouns,
  - the acoustics of palatal obstruents,
  - the make-up of verb paradigms,
  - the rate of lexical decay.

### AIS: Facts and Figures

Duration	1919-1928
Datapoints	407
Items	700.000 (approx.)
Maps	1705
Volumes	8 (printed 1928-1940)
Format	41 x 53,7 cm (1:250.000)

## 3. State of the art

All the 1705 maps of the 1920s AIS have already been digitally acquired and made available on the internet through the **NavigAIS project** carried out by Graziano Tisato (*Institute of Cognitive Sciences and Technologies - National Research Council*). The maps are downloadable or can be accessed on the internet along with a graphical user interface, as shown in **Fig. 2**.

However, by digitalizing maps as images, NavigAIS cannot fully exploit the potential of a computer-based linguistic atlas under three main respects:

- Usability, i.e. the NavigAIS transcriptions cannot be searched or exported;
- Scalability, i.e. the NavigAIS maps cannot accommodate further data;
- Interoperability, i.e. at present, the NavigAIS is not interfaced with other digital resources such as other linguistic databases.

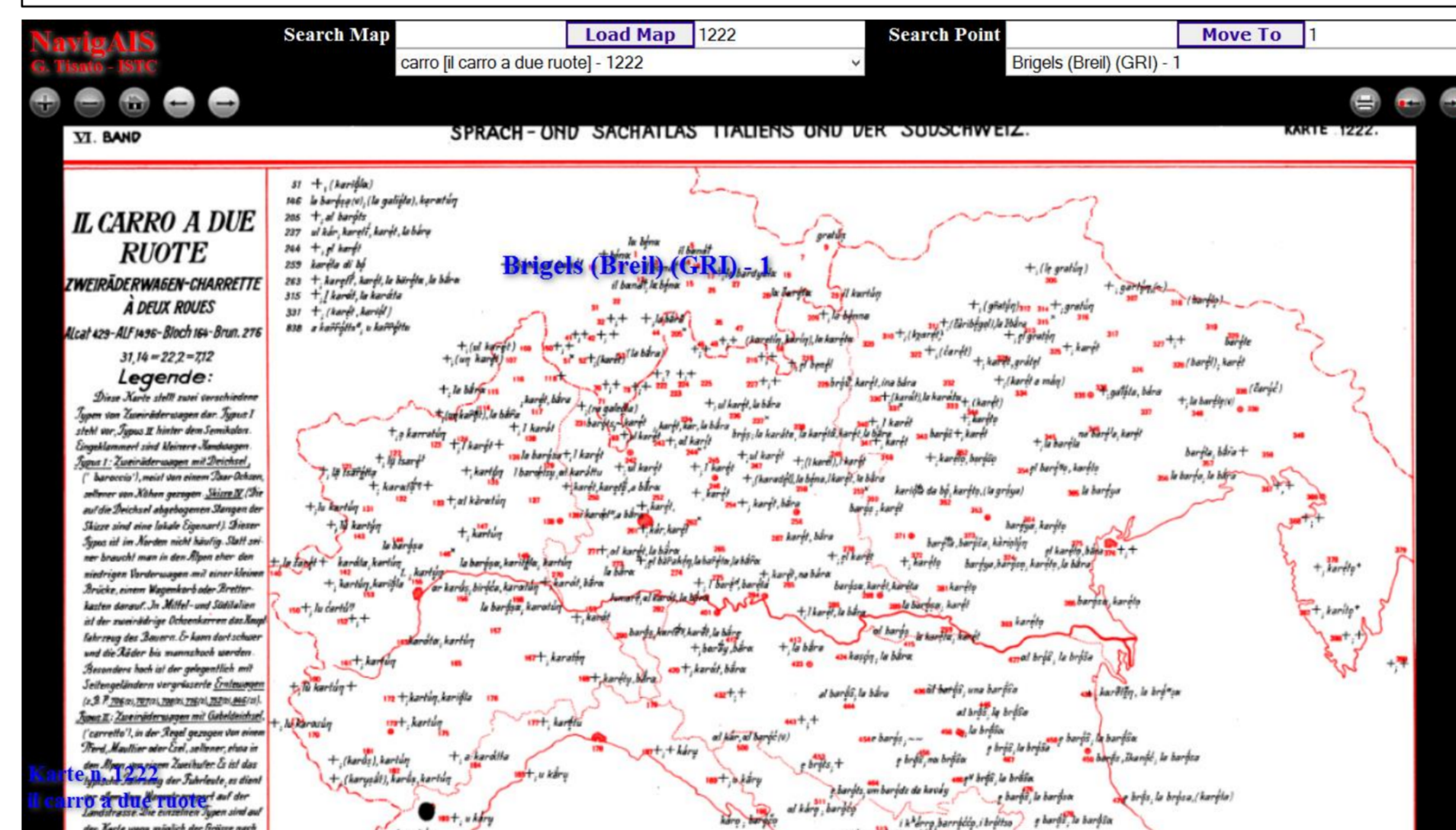


Fig.2: Screenshot of the NavigAIS web interface

## Consultants and Collaborators

### Research team (UZH):

- Michele Loporcaro, PI
- Stephan Schmid, co-applicant
- Diego Pescarini, Postdoctoral fellow
- 2 PhD students

### Research partners:

#### Linguistic consultants:

- Franco Lurà (CDE, Bellinzona), for Lombard dialects;
- Bruno Moretti (University of Bern), for Lombard dialects;
- Matthias Grünert (University of Freiburg), for Romansh dialects.

#### IT consultant:

- Graziano Tisato (ISTC-CNR, Padua)

#### Technical support:

- UZH GIS laboratory, for the implementation of GIS-based cartography;
- UZH Video laboratory for technical support for the recording of interviews and the postproduction of video files.
- UZH Phonogram Archives for the postproduction of audio files and the database.

## 4. Workflow

- Step 1: digitalization of the AIS transcriptions
  - 1a) all the phonetic transcriptions will be digitalized by means of a customised **OCR** software developed by our research partner Graziano Tisato and successively mapped into **IPA fonts**. The transcriptions will be therefore thoroughly queryable in order to search for phonetic combinations and phonetic contexts.
  - 1b) all the data will be georeferenced using a **GIS**. Unlike NavigAIS, we aim to provide our users with interactive maps rather than digitalized images of the 1920s AIS maps.

- Step 2: Pilot survey on Southern Switzerland.

Using maps and navigation software as an anchor, we would like to provide a small-scale pilot of new audio- and video-recordings of the 1920s AIS material. We will focus on **36 datapoints** in Southern Switzerland (**18 for Romansh and 18 for Lombard**) corresponding to the original points of inquiry of the AIS. For each datapoint, we will interview a selected informant by using part of the AIS questionnaire, supplemented with further questions in order to fill the gap about the documentation of certain morphological and syntactic phenomena, e.g. verb inflection, clitic pronouns, etc.

- Step 3: Digital platform

Once collected, the data will be transcribed in IPA. Transcriptions, **recordings** (both audio and video), and other materials (pictures, drawings, annotations, etc.) will be stored in a multimedia GIS hosted on the server of the UZH-Phonogrammarchiv. Among other functionalities, such as the before mentioned querability, this system allows to **overlay the digital information with the data collected in the 1920s**. Furthermore, georeferenced data can be linked to other spatial data and thus be investigated through physical models.

- Step 4: Development of new lines of research

The research team will develop four lines of research based on the analysis of the data collected during the survey. Based on previous experience, we expect the following topics to deserve particular attention: the phonetic analysis of **palatal obstruents**, **verbal morphology**, **clitic syntax**, and **language decay**.

## Contact

Michele Loporcaro

[loropcar@rom.uzh.ch](mailto:loropcar@rom.uzh.ch)

Stephan Schmid

[stephan.schmid@uzh.ch](mailto:stephan.schmid@uzh.ch)

Diego Pescarini

[diego.pescarini@uzh.ch](mailto:diego.pescarini@uzh.ch)

[www.rose.uzh.ch](http://www.rose.uzh.ch)

<http://www.phonogrammarchiv.uzh.ch/de/contact.html>

## References

1. Jaberg, K., Jud, J. (1928). *Der Sprachatlas als Forschungsinstrument. Kritische Grundlegung und Einführung in den Sprach- und Sachatlas Italiens und der Südschweiz*, Halle: M. Niemeyer.
2. Jaberg, K., Jud, J. (1928-1940). *Sprach- und Sachatlas Italiens und der Südschweiz*, Vol.1-8. Bern: Ringier, Zofingen. [Reprint edition by: Kraus Reprint, Nendeln, Liechtenstein, 1971-1981. Kraus Reprint, New York].