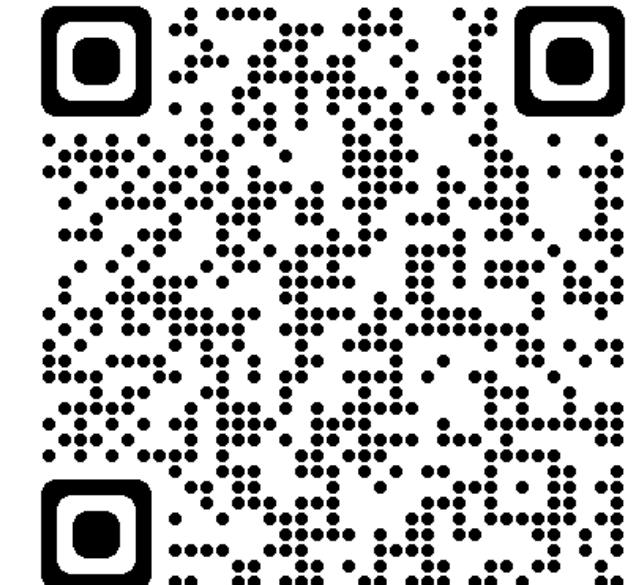


# Towards a complete Mapping of Kurdish Dialectology



## Introduction

The Kurdish language and its many variations have been actively researched [1] with little consensus about their classifications. Fundamental issues are still occupying recent work [2, 3]:

- Gorani and Zazaki to be standalone languages [4, 5]
- Gorani and Zazaki are part of the Kurdish language [6, 7, 8, 9, 10].
- Zazaki and Gorani are one dialect [11, 9]
- Them being separate dialects [12, 13].

This work aims to shed light on Kurdish dialectology via the creation of an [interactive map](#).

## Related Work

Early work on Kurdish dialect geography [5], proposed a division of the Kurdish language into the **three dialect groups Northern, Central and Southern Kurdish**, which have been the basis for much of the linguistic work for Kurdish. Later sub-classifications took place **Northern Kurdish (Kurmanji)** first into five [14], later adjusted into three [15] distinct dialect groups.

New understanding grows upon and rectifies prior work as can be seen by [16] writing about the often referenced work of [17]:

*"it seems obvious that the seven subgroups identified by (Fattah, 2000) cannot be treated as clear-cut, sharply-defined bundles of dialects. They show considerable internal variation and in some cases seem to include dialects manifesting highly diverging features. Some varieties cannot be easily ascribed to any specific subgroup, but are transitional between subgroups."*

The here allured concept of **dialect continuum** is crucial for understanding or even displaying the Kurdish language.

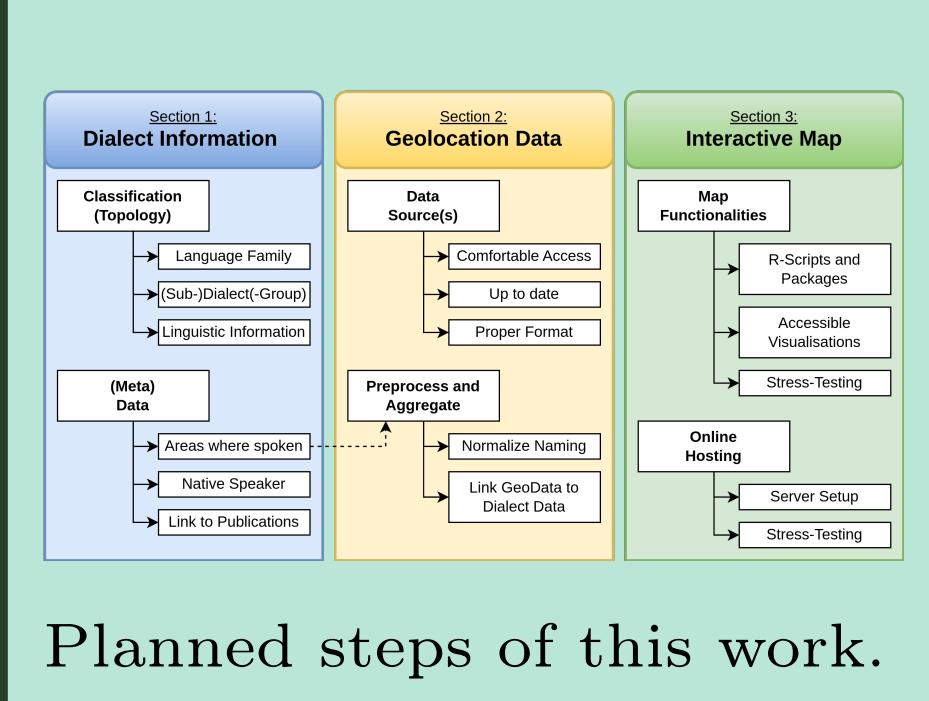
Work on Kurdish language, regardless of producing a map or not, tends to focus on just a few or only a single dialect: **Northern Kurdish** [14], **Central Kurdish** [18], **Southern Kurdish** [16] and **other dialects** [19].

Be it personal interest, or borders between countries- for some reason most works fail to deliver more than a very rough outline of the Kurdish language landscape to interested readers.

## References

- [1] Gündogdu, S., et al., (2019)
- [2] Haig, G. & Öpengan, E. (2014)
- [3] Haig, G. & Khan, G. (2018)
- [4] Minorsky, V. (1945)
- [5] MacKenzie, D. (1961)
- [6] MacKenzie, D. (1991)
- [7] Hassanour, (1992)
- [8] Hassanour, (1993)
- [9] Khalid, H.S. (2020)
- [10] Hassani, H. (2021)
- [11] Hama-Khurshid, F. (2008)
- [12] Sheyholislami, J. (2015)
- [13] Azzat, M., et al., (2023)
- [14] Öpengan, E., & Haig, G. (2014)
- [15] Haig, G., & Öpengan, E. (2018)
- [16] Belelli, S. (2019)
- [17] Fattah, I. K. (2000)
- [18] Malmasi, S. (2016)
- [19] Ahmadi, S. (2020)
- [20] Stone, A., & Anonyby, E. (2022)
- [21] Ichihara, Y., et al., (2008)

## Concept



Planned steps of this work.

## Methodology

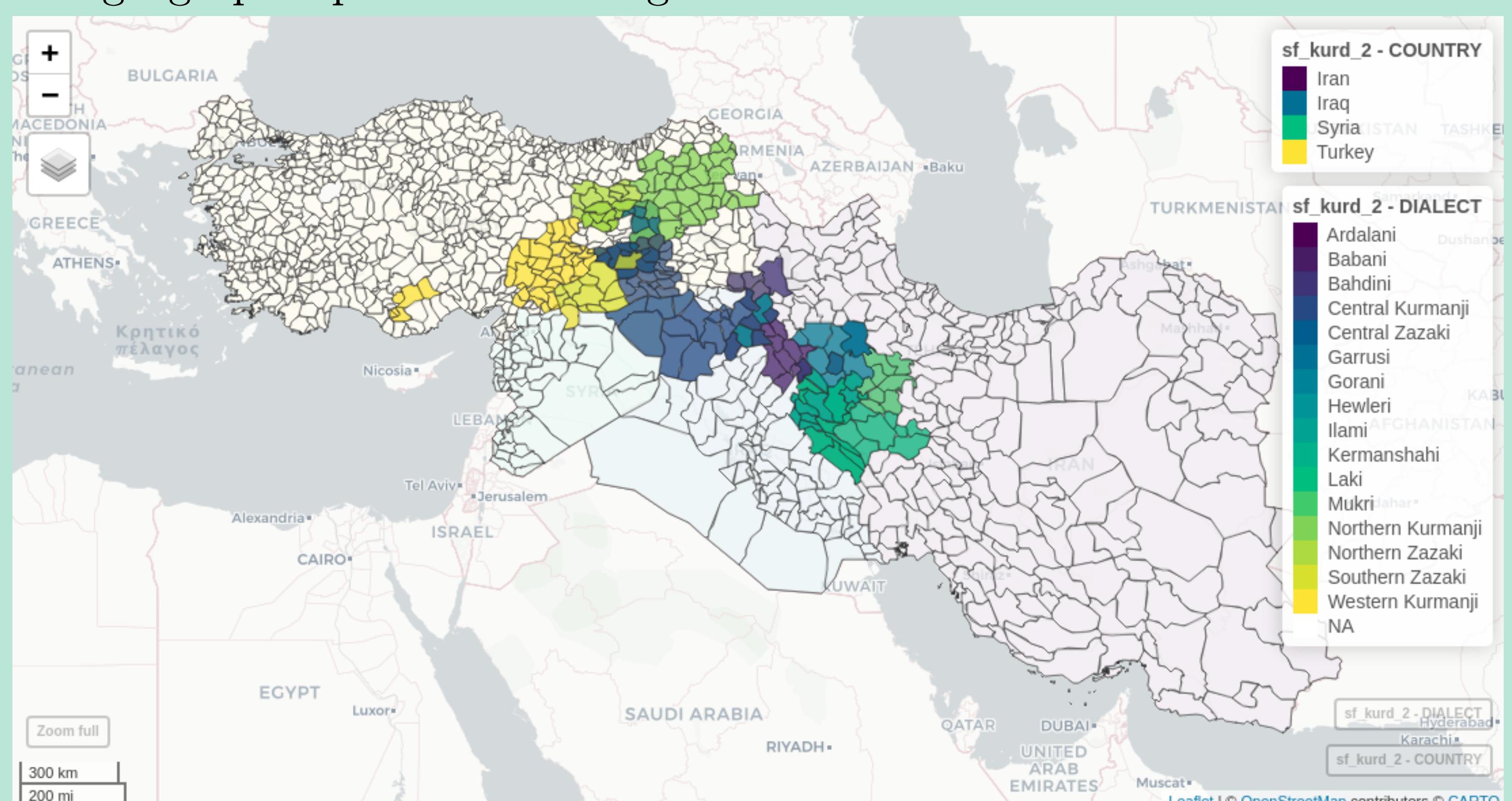
Applying **Evaluative Language Mapping Typology (ELM-T)** proposed by [20] in six sections:

1. Technical setup	Digital aspects → Interactivity in use and creation Accessibility → Colorblind-friendly palette [21]
2. Context and theme	Social context → Author = Audience Map language(s) → En, De, Ku, Ar, ...
3. Type of language map	Language varieties treated → Identification & Categorization of varieties Other types → Language classification taxonomies & diachronic extension
4. The data	Data sources → References to publications Data selection → Choice of data and grouping
5. Visualisations and other representational strategies	Canvas → Administrative divisions and borders Visualisation of key data → From labels & polygons to heatmaps Overlap of points/polygons → Colours & textures
6. Critique	Possible motivation and bias → Interest & advancement of knowledge Limitations → Scope & ambiguity of data and third party usage

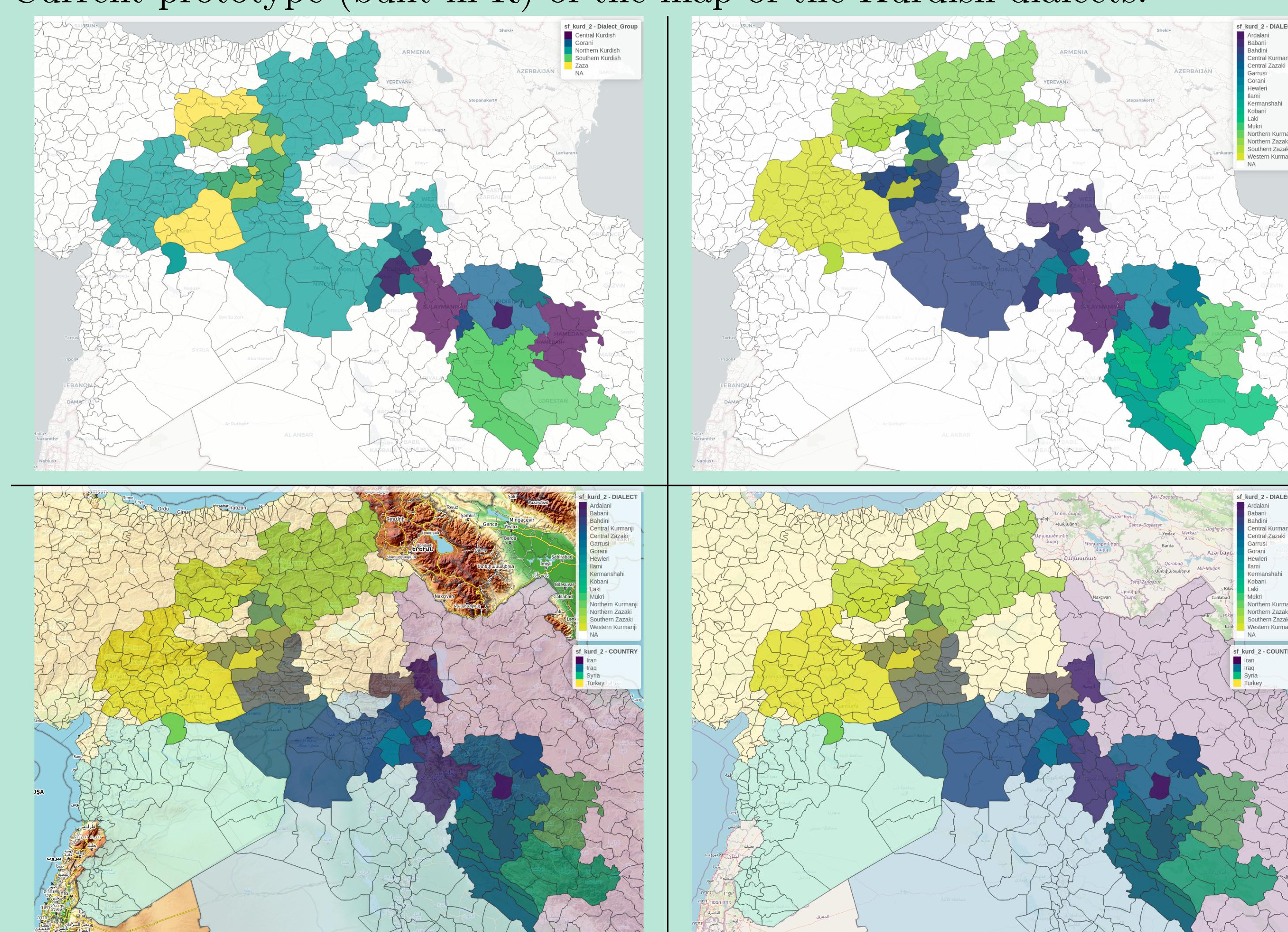
## Data & Results

Utilizing various R-Packages, we now have information for **3551 distinct locations**, considering the second layer of administrative boundaries of the countries Iran, Iraq, Syria and Turkey.

Scouring the plethora of scientific publications rewarded us with a list of **over 100 dialect names** of varying granularity and specificity in their definition and geographic position and linguistic classification.



Current prototype (built in R) of the map of the Kurdish dialects.



Examples from the current prototype. **Top-Left:** Dialect groups layer. **Top-Right:** Dialects layer. **Bottom:** Different settings of the map.

## Conclusion & Next Steps

Collectible data is manifold but inconsistent- sometimes borderline chaotic requiring a well considered **storage structure**.

Managing the **resolution of visual complexity** given many overlapping dialects and diverging classifications.

Next up: Exploring server solutions for **online availability**, prior to **expanding map features**, followed by more **data integration**.

## Varieties

Kurdish	Amudki
Central Kurdish	Deriki
Mukriyanî, Mukrî	Khorasani Kurmanji
Sine'i	Urfa Kurmanji
Sanandaji	Mihemedî
Southern Jafi	Marashi
Warmawa	Bahdini
Sorani	Kochgiri
Ardalani	Sarhadî
Babani	Tori
Bingird	Bekrani
Garmiyani	Birjendi
Hewleri	Cezîrî
Khanaquin	Jiwanshiri
Pizhdar	Qocani
Rewandiz	Senjari
Suleimanni	Judikani
Arbili	Yuneki
Kerkuki	Southern Kurdish
Xoshnaw	Ilami
Kâmyârân	Badre'i
Diwândara Kurdish	Garrisî
Snayî, Senayî	Malekshahi
Fayzullâbâgi	Laki Southern Kurdish
Tilakûwi	Kermanshahi
Sarshiwi	Kordali
Laylâkhi, Laylakhî	Peripheral Kermanshahic
Kurdali, Kordali, Palai	Kalhorî-Sanjâbi-Zangane
Kushnawi	Kalhorî
Judeo-Kurdish	Sanjabi
Northern Kurdish	Zangane
Northern Kurmanji	Kolyai
Bayezidi	Luri
Bitlis Kurmanji	Macho & Gurani
Erevan Kurmanji	Bajelani
Mush Kurmanji	Bayray
Van Kurmanji	Kurdî Xwarîn
Southeastern Kurmanji	Pehlewani
Akre	Laki
Amadiye Kurdish	Zazaki-Gorani
Barwari Jor	Gorani
Gullî	Gurani
Hakkari	Hawraman-I Luhon
Mhallami	Hawraman-I Taxt
Sheikan Dohuk	Kakai
Shemdinani	Nuclear Gurani
Surchi	Gawhara
Zakho Kurdish	Kandula
Southern Kurmanji	Zardayna
Ashitî	Shabak-Bajalani
Botî	Bajelani
Western Kurmanji	Shabak
Northwest Kurmanji	Chabak
Elbistan Kurmanji	Sarlı
Sivas	Zaza
Southwest Kurmanji	Dimli
Aleppo Kurmanji	Dumbuli
Rojavayı	Hazzu
Kobanî, Kobankî	Kori
Shexî	Motki
Suruki	Siverekî
Shexi	Kirmanjîki
Afrîni	Tunceli
Qamisloki	Varto
Ashitî	Dersim
Sherbi	Zengene

Kurdish language varieties drawn from various sources.