

## **Hungarian Gazetteer of Maghrebian place names**

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### **Introduction**

Geographical names serve as a means to identify locations. They are regarded as reference data that serve as the spatial framework for recognizing geographical location in general and linking to or pointing to other data in specific thematic fields such as the environment, addresses, area management, and human health. Moreover, they are widely used in web services, geoportals, navigation, geocoding, geographic information visualization on maps, and processing spatial data sets containing historical data. The proper use of geographical names is an essential aspect of everyday communication. Hence, numerous users, including press agencies, map publishers, spatial analysts, authorities, and others, are interested in the status (official, historical) and linguistic features (language, spelling, eventual transliteration) of geographical names. In brief, accurate use of place names is integral to successful communication worldwide, as it helps with socioeconomic growth, conservation, and national infrastructure.

Gazetteers, initially, were reference books that listed the names of locations and their approved spellings (toponyms), where contextual and descriptive information about the locations was added as appropriate. However, they are “more than a map index” (Chen et al., 2020), but “resources that store structured information about places” (Acheson et al., 2017). The gazetteers “are small encyclopaedias, a collection of geographical names” (Ungvári, 2014). It is a “geospatial dictionary of place names, also known as a toponymical dictionary” which “expands from the traditional cataloguing of place names and includes geo-graphic elements such as spatial relationships, concepts and terms related to places” (Machado et al., 2011).

As sources of structured information on locations, gazetteers can not only help with a variety of information retrieval tasks, including “named entity recognition, place name disambiguation, geotagging, document classification” (Machado et al., 2011), but can also significantly contribute to the solution of geographic information retrieval issues. “Gazetteer-based services are being developed and deployed” in sectors as diverse as “public health, natural history data management, cultural history, and automated text georeferencing (geoparsing)” (Goodchild & Hill, 2008).

Because of its function in “supporting the general user’s interaction with geographic information technologies”, the names layer is becoming increasingly crucial in GIScience. Gazetteers and gazetteer services can integrate with GIS and other projects to convey reference information on locations, as well as point to other versions or

variants of names from various sources, at various time periods, and in different languages. Hence, they are critical in "facilitating communication between the informal, idiosyncratic, and often vernacular world of human discourse and the formal, scientific, and hopefully interoperable world of GIS", and thus offering a "more human-oriented paradigm of user interaction". In other words, their core elements of place names, place categories, and geospatial locations assist in "the translation between informal georeferencing" using place names (Casablanca) and place categories (city) and "the formal georeferencing of mathematical schemes (e.g. longitude and latitude coordinate systems)" (Goodchild & Hill, 2008).

## **Data and Methods**

This study does not intend on giving rules but on providing an analysis and a comparison, a historical background, and set up a gazetteer for the use of those who utter and write down the names (oral, and writing purposes). Hence, this paper aims to compile a gazetteer of Maghrebian geographical names from various Hungarian publications. This gazetteer is one of the possible outcomes derived and produced from the names databases compiled throughout the research. Several sources have been used to construct the gazetteer; Diva Gis data, data from Cadastral offices, school atlases, world atlases, and globes.

It is critical for the gazetteer to have both adequate coverage and completeness in order to achieve high recall for place-name identification. The gazetteer offers a coverage over the Maghreb region (Morocco, Algeria, Tunisia), the coverage of each country in the dataset vary as a function of the extent of how much detailed the country was covered in the Hungarian publication (data availability).

The gazetteer will comprise the location's name according to the international transcription, the Arabic version, and the correct Hungarian spelling according to the book of the Hungarian spelling of eastern languages, along with an indication of their location (DZ = Algeria, MA = Morocco, TN = Tunisia). Hence, it consists of toponyms in different scripts and languages that refer to the same geospatial location which will allow the reader to read and pronounce the names. Moreover, it will include the name variants that appeared in the studied maps and globes for the past two hundred years. As certain name variations exist in various sources, the publications from whence they originate are only listed as a point of reference. These name variants are listed independently, one by one, where the correct toponym is in bold, while all the others are indicated with "→ see there" that will direct the reader to the correct toponym. As a result, this would be a complete gazetteer with a comprehensive list of Hungarian occurrences.

*International spelling – Official spelling in romanized form – The Arabic name  
– The Hungarian official spelling*

*Variant → TOPONYM*

In principle, such structure will allow for several gazetteer versions depending on the leading language, which can be French, the official Hungarian spelling (where we can insert the misspelling of place names with an arrow), or it can be Arabic.

Furthermore, in addition to the paper-based list of toponyms, it will also have a freely available online service. The online gazetteer will consist of a base map, a search functionality that enables the user to search and find a location of interest, offering a detailed panel with a list of the variants collected from Hungarian publications.

- Place Name: International name, Arabic name, and the approved Hungarian name
- Country Name: Algeria, Morocco, Tunisia
- Locations: Pair(s) of longitude and latitude.
- Attribute: Type of place name
- Variants: Collected from the Hungarian publications

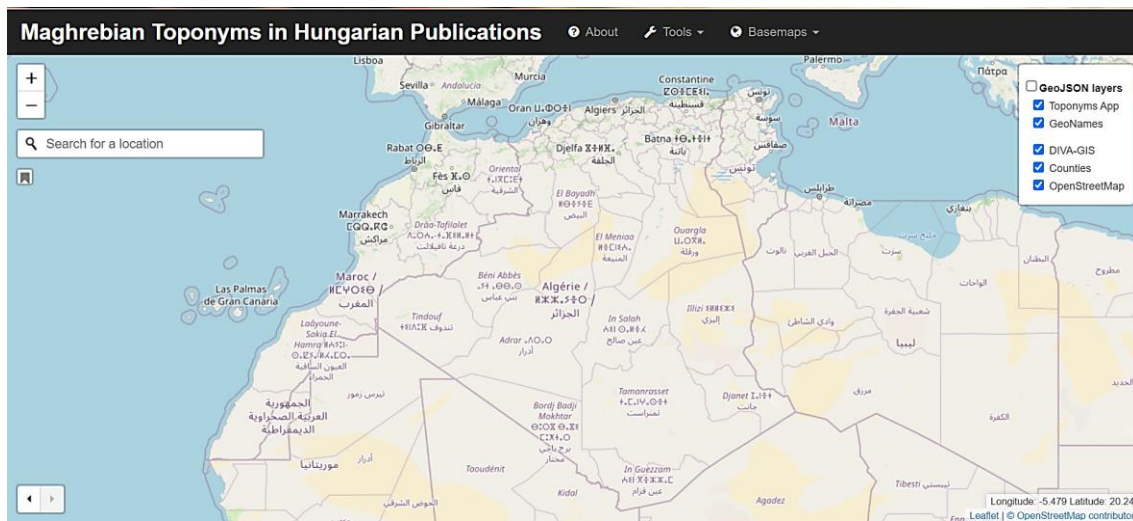


Figure 1: The online gazetteer of Maghrebian Toponyms in Hungarian Publications

This gazetteer aims to simplify the registration of the geographical names, which will make the search easier. It can aid in the onomastic and historical research and analysis. Besides, it will shed light on how names have evolved over time and can also be used to recognize a term as a probable reference to a location.

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